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 specialists 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 195 member companies worldwide.
Boeing and VSMPO-AVISMA Open Joint-Venture Manufacturing Facility

MOSCOW, 07/07/09 – Boeing [NYSE: BA] and Verkhnaya Salda Metallurgical Production Association (VSMPO-AVISMA) today opened Ural Boeing Manufacturing (UBM), a joint-venture company based in Verkhnaya Salda, Russia. UBM is a new, state-of-the-art facility that will machine titanium forgings for the world’s most technologically advanced airplane – the Boeing 787 Dreamliner – and for Russian airplanes.

“The opening of UBM represents another step in a relationship between VSMPO and Boeing that began in 1997,” said Scott Carson, president and chief executive officer of Boeing Commercial Airplanes. “VSMPO-AVISMA and Russian Technologies continue to be Boeing’s largest partners in Russia. I am certain that UBM will be a successful enterprise, delivering high-quality products and adding value to the 787 program.”

“Together, Boeing, VSMPO-AVISMA and Russian Technologies have created a strong, mutually beneficial alliance that is able to accomplish 21st-century manufacturing tasks using the latest technologies at a world-class level,” said Sergey Chemezov, chairman of the board of VSMPO-AVISMA and chief executive officer of the Russian Technologies Corp. (the major shareholding company of VSMPO-AVISMA).

“This joint venture is a testament to the deep cooperation between The Boeing Company and Russia – cooperation that was first forged in the historic U.S.-Soviet space mission in the 1970s,” said US Commerce Secretary Gary Locke. “These partnerships create jobs and economic growth in both the United States and Russia and are a model of the benefits of open trade and investment opportunities.”

The joint-venture company was formed in August 2007. During the past two years, the team completed building the new facility and installing the latest high-tech milling machines and tools.

UBM will perform preliminary machining of titanium forgings that will be delivered from the adjacent VSMPO-AVISMA titanium mill. Final processing of the forgings will be completed by Boeing’s Portland, Ore., fabrication facility and other machining subcontractors. In addition the titanium machining-turnings, or “chips,” from UBM will be recycled back to VSMPO-AVISMA to create a more efficient closed-loop system.

Boeing forecasts that over the next 30 years it will spend as much as $27 billion on Russian titanium, aerospace design-engineering services, and a variety of other services and materials.

About VSMPO-AVISMA
- VSMPO is the world’s largest vertically integrated producer of titanium products and acquired AVISMA, the world’s largest producer of titanium sponge, in 1998. Titanium sponge is the most basic form of titanium metal.

About Boeing in Russia -- Boeing and the Russian aerospace industry enjoy a mutually beneficial partnership that began 15 years ago. Two key Boeing centers are located in Moscow: the Technical Research Center develops projects related to cutting-edge technology including new materials, prototyping, and aerodynamics; the Boeing Design Center supports all major Boeing commercial-airplane programs and employs over 1,200 engineers through contracts with leading Russian engineering firms. Boeing also serves as an advisor to the Sukhoi Superjet 100 airplane program. Contacts: Dmitry Krol, Boeing International Corporate Communications, +7 495 797 3415, dmitry.krol@boeing.com or Chantal Dorange, Boeing International Corporate Communications, +34 630046736, chantal.dorange@boeing.com

Specialty Metals Processing Inc. Introduces Wet 72” Wide Sheet/Plate Polisher & Precision Grinder

Specialty Metals Processing Inc. (aka SMP) a toll processor of nonferrous metals, located in Stow, Ohio is ready to accept orders on its newly installed custom built, state of the art wet 72” wide sheet/plate polisher and precision grinder. It features CNC controls, special lighting and a 240” long vacuum chuck table. It can polish or precision grind from .020 up to 6” material and can give a premium polish finish to stainless, aluminum, titanium and special alloys. On precision grinding, it can hold tolerances of +/- .002. SMP is still expanding its capabilities and will have 15 processing lines under one roof by the end of this year.
Perryman Company Announces Installation of Titanium Breakdown Facility Completes Last Phase in Strategic Expansion Plan

Houston, PA, 08/17/09 – Perryman Company announced today the completion of its integration project with the installation of a state-of-the-art titanium breakdown facility. The operation is located in the California Technology Park, California, Pennsylvania. It is co-located on the same 40 acre campus as the Perryman Company titanium melting operations.

Installation of the breakdown facility completes the last phase of Perryman’s expansion and vertical integration strategy and allows the company to be self sufficient from melt to finished products. “From the start, our goal was to meet our customer’s needs by providing a steady, consistent, and reliable supply of quality titanium products regardless of market conditions. This investment, in conjunction with our other operations, helps us and our customers to mitigate the dramatic cyclical swings affecting material lead-times, supply, and pricing that is often experienced through the peaks of demand in the titanium cycle,” commented Frank Perryman, President and Chief Executive Officer of Perryman Company.

With the completion of the facility, Perryman Company is now able to convert ingots up to 32” diameter. The facility has the capability to produce various sizes and configurations of titanium products.

The breakdown facility will employ a rolling process which will be more efficient than the traditional forge press route typically used to breakdown ingots. The $40 million investment is the first of its kind dedicated to titanium and was designed to operate in a highly automated manner.

Despite the economic challenges the titanium industry is facing today, particularly in the aerospace sector, Perryman is confident that a recovery is on the horizon. The primary markets which were driving forces behind the company’s decision to invest in the expansion include aerospace and medical markets. The integration initiative, which began nearly 4 years ago, was developed with the knowledge that the industry is indeed cyclical. “We have been here before,” states Perryman, “the fundamentals of the aerospace mar-
ket point to the fact that robust demand will return, and with the investments we have made we will be well positioned to meet our customer’s needs when it returns.”

Perryman Company, founded in 1988, is headquartered in Houston, Pennsylvania. Company offices are located in Philadelphia, Los Angeles, London, Zurich, Tokyo and Xi’an, China. Perryman Company is a vertically integrated producer of specialty titanium products. From melting of ingot, through in-house breakdown to finished products capabilities, Perryman’s quality and technical expertise is unmatched. The product portfolio includes ingot, bar, coil, fine wire, net shapes, and hot rolled products. A global titanium leader, Perryman supplies and services customers in the aerospace, medical, consumer, and recreation markets worldwide.

Horie Corporation at New York International Gift Fair

According to information found on various Web sites, the Japanese concept of aesthetics known as “wabi” is difficult to translate into western language and thought. Some definitions describe wabi as an appreciation of simplicity and natural forms; a way of seeing that is able to recognize and quietly savor the value of understated, inner beauty, rather than the superficial, ornate creations of man.

This elusive, abstract notion of wabi softly echoed in the products displayed by Horie Corp., at the 2009 New York International Gift Fair, held Aug. 16-20 at the Javits Convention Center. Horie (Web site: www.horie.co.jp), based in Tsubame City, Niigata Prefecture of Japan, and its US subsidiary, Horie USA Corp., based in New York, unveiled its Wabi series of decorative titanium beer vessels and saki cups, along with an assortment of other titanium consumer products for the home.

Made from commercially pure (CP) titanium, the tapered beer vessels measured about 4 inches (105mm) in height and about 3 inches (72mm) in diameter at the cup’s crown. The saki cups were short, “single-shot” Continued On Page 17
Titanium Industries Announce Changes

The owners of Titanium Industries and GMT Titanium of Europe, including their High Performance Metal marketing arm which handles non-titanium metals, announce changes in the structure of their European distribution facilities. “The depth and duration of the global economic recession creates difficult operational and financial issues for many companies but at the same time creates opportunities”, said Jim Paddock, CEO. “We are positioned to take advantage of many opportunities presented to us including on-the-ground stock of additional metals and personnel additions.

“We strategically believe there are specific regions of the world from which we need to operate”, said Brett Paddock, President and COO. He continued, “In addition to 5 USA locations, 3 European locations, Canada, India and Taiwan, we believe additional European locations including Eastern Europe and Latin America will enhance our viability as a global manufacturing distributor of metals. Much of Titanium Industries current customer base has or is currently expanding into other parts of the world and it demands, although not requires, that we be there with them.” Titanium Industries earlier announced many long-term agreements such as Bombardier and United Technologies Corporation, with durations of up to 6-years, along with additional global aerospace, medical and industrial long-term agreements. Many customers are moving to countries with lower cost manufacturing and fabrication, others have to accommodate strategic offset programs while others seek the significant opportunities created by countries with some of the world’s largest populations and potential customer base.

In support of this effort and with 3 facilities stocking material in Europe, Gary Dobb was named Director of Titanium Industries Birmingham, UK facility and will manage that operation. In conjunction with that, Craig Simpson has been named Director, European Marketing & Sales. All sales personnel with current and future operations in Europe will continue to report to their Regional Director while having an indirect reporting responsibility to Craig Simpson.

Additionally, Gary Martin was earlier named Director, High Performance Metal to support and grow the significant non-titanium business. Initial efforts were aimed at nickel grades for oil & gas and aerospace, medical grades and other aerospace and general industrial grades. However, more recently, that diversification has expanded into aluminum, Monel, duplex, carbides and others metals.

Titanium, which was once considered an exotic metal, has an excellent strength-to-weight ratio, low density, excellent natural corrosion resistance, superior erosion resistance, and is non-magnetic. The heat transfer efficiency, higher strength, and corrosion properties of titanium are well suited for many applications.

Other advanced materials, particularly nickel-based, which can withstand the high temperature, high pressure, and corrosive environments for many applications must be used in certain applications. Nickel based alloys provide excellent strength over a wide range of temperatures and corrosion properties.

Titanium Industries is a global manufacturing distributor of titanium, nickel based alloys and a variety of other metals with value-added services in saw, laser and water-jet cutting, shearing, boring, trepanning, welding instruction and vendor managed inventory. GMT Titanium in Europe is a fully owned subsidiary and non-titanium products are marketed through High Performance Metal. With five distribution facilities and two sales offices in the USA along with six international locations, Titanium Industries is capable of providing the global reach many oil & gas companies require.

www.titanium.com

www.gmttitanium.com

www.highperformancemetal.com
MAKINO RELEASES THE T4, BUILT FOR EFFICIENT TITANIUM MACHINING

MASON, OHIO – June 2009 – Makino’s new T4 five-axis horizontal machining center dramatically increases titanium milling efficiency, combining lean manufacturing methods and increased metal removal rates for today’s aerospace applications. It is specifically designed for the production of large titanium and titanium alloy aerospace parts such as edge frames, pylons and bulkheads. The T4 includes several key elements for efficient titanium machining, including an Active Dampening System, rigid construction for enhanced performance, a high torque, high powered spindle, and a high pressure, high flow coolant system for increased speed and productivity.

“We designed a machine that would be ideal for titanium, top-to-bottom,” said Alan Hollatz of Makino’s Aerospace Group. “The unique characteristics of this material demanded that we start with a rigid, stable platform to overcome vibration problems associated with titanium milling, and focus on a horizontal spindle solution with a compact high-torque integral drive spindle for faster acc/dec and machining productivity.”

Titanium

Parts made from titanium are critical to the aerospace industry for their high strength and toughness, lightweight, corrosion resistance and ability to withstand extreme temperatures. Titanium parts are difficult to cut due to deflection issues and poor thermal conductivity that concentrates heat at the cutting edge.

Enhanced Rigidity

The T4 design features Makino’s new Active Dampening System, a technology that balances frictional forces with the cutting force to suppress vibrations. With the Active Dampening System enabled, the T4 can perform deeper cuts, achieve higher metal removal rates, and reduce tool wear.

Reorganization of titanium business:

ThyssenKrupp Stainless to create high-performance materials unit under leadership of ThyssenKrupp VDM

As part of the restructuring of the ThyssenKrupp Group, ThyssenKrupp Stainless AG is reorganizing its titanium business: The activities of ThyssenKrupp Titanium GmbH are to be transferred to ThyssenKrupp VDM GmbH and combined in a specialized high-performance materials unit. The Stainless group expects the reorganization to provide more growth opportunities for the titanium business. The Supervisory Board of ThyssenKrupp Stainless has now approved this measure. The merger will take effect at October 1, 2009.

At present, titanium operations are carried out in Germany by ThyssenKrupp Titanium GmbH (Essen) and in Italy by ThyssenKrupp Titanium S.p.A. (Terni), both of which are assigned to ThyssenKrupp Acciai Speciali Terni. The Essen plant melts titanium sponge and scrap into titanium ingots and slabs and processes them into billets, bars and sheet. Further processing to coil, tube and sheet takes place at the Terni facility, with key production steps being carried out by ThyssenKrupp Acciai Speciali Terni. Under the reorganization, the worldwide sales operations of ThyssenKrupp Titanium including the Milan sales office as well as the Essen production site will be transferred to ThyssenKrupp VDM (Werdohl), which produces nickel alloys and high-alloy special stainless steels. ThyssenKrupp Acciai Speciali Terni will retain responsibility for the further processing operations in Terni.

“The reorganization will significantly strengthen the high-performance materials business in the Stainless group,” emphasizes Dr. Jürgen Olbrich, Chairman of the Management Board at ThyssenKrupp VDM. “Combining our operations in this specialty area makes good sense, not least because ThyssenKrupp Titanium and ThyssenKrupp VDM already share markets such as the aircraft industry and the chemical and energy sectors and have strong overlaps in their customer relationships,” Olbrich continues. ThyssenKrupp Stainless believes that the planned growth strategy for titanium can be realized more effectively as part of a combined group under the
Solar Manufacturing, Inc. Ships High Temperature Sintering Furnace

Souderton, Pa. -- Solar Manufacturing, Inc. recently completed the shipment of a high temperature sintering vacuum furnace to an industry leader in the design, development and production of advanced specialty metal components for the aerospace and defense industries. This custom furnace, a model HFL-5748-2EQ with additional graphite felt hot zone insulation, is capable of an operating temperature of 1800° C.

Solar Manufacturing designs and manufactures heat treating and brazing furnaces with a focus on energy efficiency and durability. “Our customer needed a robust vacuum furnace to sinter heavy tungsten alloys at very high temperatures. We demonstrated that our vacuum furnaces can achieve high performance operation with low cost-of-ownership through the use of state-of-the-art materials,” said Pete Reh, vice president of sales.

The working dimensions of the hot zone measure 36” wide X 36” high X 48” deep. Due to the extremely high maximum temperature this end user desired and the need for superior temperature uniformity, the hot zone is super insulated with eight (8) layers of 0.5” thick high purity graphite felt insulation for superior energy efficiency. The insulation pack is protected by a hot face of 0.040” thick Flex Shield, a durable, flexible carbon fiber reinforced graphite foil. Thin graphite heating elements are mounted cylindrically in the hot zone and divided into multiple trim zones. The weight capacity of the graphite hearth is 2,000 pounds.

Solar Manufacturing’s state-of-the-art, interactive control system, the SolarVac 3000, will perform monitoring and control. The external gas quenching system utilizes a high-capacity copper heat exchanger, 150 HP drive motor and a radial blade fan for high velocity gas quenching through unique “forward tapered” graphite nozzles. The chamber’s front door features a pneumatically operated, locking ring closure to facilitate positive pressure quench to 15 psig (2 bar). A 20” Varian diffusion pump allows for high vacuum performance of 1 x 10-5 Torr.  

Uniti Titanium Announced Introduction of a new product line

Uniti Titanium has announced the introduction of a new product line, continuous seam welded CP titanium pipe. Capitalizing on our partners’ vertically integrated mill products capability, Uniti is able to offer a cost effective welded titanium pipe. Grade 2 titanium coil (ASTM B 265) is readily available for direct application into welded pipe. Other grades of commercially pure titanium, such as grades 7 and 12, are also available upon request. Welded pipe is available in nominal pipe sizes of 3 to 12 inches (76.2mm to 304.8mm) and schedules 10 and 40.

The manufacturing center for this product line is located in the United States, however, Uniti has the capability to ship welded pipe anywhere in the world. Interested parties may contact any of Uniti Titanium’s global sales offices for price and availability or Marketing Manager Rob Henson for technical inquiries or other customer service related requests. Contact details are listed on Uniti Titanium’s website www.uniti-titanium.com

Rock Island pushes plans forward July 2009

Rock Island Arsenal has hired a new director in order to move the planning of a Quad-City Manufacturing Lab forward. The Quad-City Manufacturing Lab, developed by a consortium of Quad-City educators and business leaders, has hired Jim Sears of the South Dakota School of Mines and Technology. A native of Atkinson, Illinois, US, Mr Sears is the school’s director of additive manufacturing. Joining him is Pete Collins of Ohio State University. In early June, Mr Sears’ gathered together leaders of 60 North American companies in Moline, Illinois for a summit to discuss the plans for the proposed lab. The lab is designed to bolster manufacturing at the Arsenal by establishing the Joint Manufacturing & Technology Center as a world center of titanium manufacturing.
Medart Enters India Market

Ellwood City, PA - Medart, Inc. is pleased to announce direct sales representation in India. G. Rajasekhar Reddy joins Medart as the Business Development Manager - India Operations. Reddy has an Engineering Degree and over 18 years of experience in the Metals Cutting Industry. Reddy’s office is based out of Bangalore, India.

Medart designs and manufactures processing equipment for the cold finishing industry. Family-owned and operated since 1994, Medart has been on the forefront of technology and innovation since the early 1900’s. Today, Medart continues to be on the cutting edge of straightening and bar peeling technologies and innovations. Through extensive research, a history of working within plants and mills, and comprehensive customer training capabilities, Medart has gained a skilled intuitiveness, which allows the company to assess and understand each customer’s unique situations. For companies large or small, Medart offers total solutions to many of the challenges that face the metal processing industry today.

For more information on any of Medart’s equipment, go to www.straight-to-medart.com or call (724) 752-2900.


Now Available!

Published by the International Titanium Association, the Statistical Review is a compilation of titanium statistics, organized by the ITA from government and trade association data. The publication includes a full range of industry statistics including Canada, China, European Union, Japan, Russia, Taiwan, and USA.

Published annually, the Statistical Review includes information from the new Harmonized System.

ITA Members: On the ITA Website enter your User name and Password to download your copy under: “FREE Publications to ITA Members”

Non Members: $75
LATROBE SPECIALTY STEEL COMPANY
Expands Titanium Processing Capabilities

Latrobe Specialty Steel Company, located in Latrobe, PA, has been a leading forging and rolling processor of titanium for almost 40 years. Recently, the processing has been limited to primary breakdown of ingot to many forms of RCS and round blooms and billets on a conversion basis for the Industry. The upgrade of Latrobe Steel's Continuous Rolling Mill (CRM) has presented numerous value added opportunities for titanium mill products.

Latrobe Specialty Steel recognizes the forecasted growth of the market for titanium fasteners. This burgeoning demand will allow for Latrobe’s expansion into Ti fastener wire. The company is now producing and marketing titanium fastener wire from its finishing operations in Wauseon, Ohio. Capital investments are being implemented to increase production levels at Wauseon.

Timothy Gustafson is Director of Titanium Operations. Prior to working at Latrobe, Mr. Gustafson has held engineering positions with Allegheny Ludlum Steel in Brackenridge, PA and engineering and production management positions with Dynamet, Inc. in Washington, PA. Mr. Gustafson reports directly to Mr. Dudley Merchant, Vice President of Business Development.

HAILONG (ZHANGJIAGANG) INDUSTRY CO., LTD is located in Jiangsu Yangtze International Metallurgical Industrial Park close to Shanghai and it covers an area of 40,000 m2.

HAILONG mainly produces Seamless Titanium and Titanium Alloy Tubes & pipes, Nickel & Nickel Alloy tube & Pipe, Stainless Steel tubes & pipes. Among them the size range of Titanium tube and pipe are 6~168mmOD×0.5~18mmWT×max length of 15 meters, annual capacity of 600 tons. HAILONG proceeds strictly as per GB, ASME, ASTM, DIN, JIS standards etc.. Hailong was ISO and PED certified by TUV and the products are approved by Third Party Inspection Agency such as BV, SGS, LR’s, TUV, etc..

Insisting on the policy of Sincerity and win-win cooperation, HAILONG will do the best to offer good quality products and professional service to the customer home and abroad.

For more information contact: Jiangsu Yangtze International Metallurgical Industrial Park, Zhangjiagang City, Jiangsu Province, China Tel: 0086-512-58986900, Email Address: hailonggood@163.com

The only source for complete information about titanium and the leading companies in the titanium industry.

These publications are now available at [www.titanium.org](http://www.titanium.org). Exclusively by International Titanium Association

Email: [ita@titanium.org](mailto:ita@titanium.org).
Thermo Scientific Niton XL3t Series Analyzers with GOLDD Technology Provide Much Faster Testing Speed and Dramatically Improved Analytical Performance

BILLERICA, Mass. (August 11, 2009) – When you require extreme accuracy, precision, speed, and ease of use, the handheld Thermo Scientific Niton XL3t with geometrically optimized large area drift detector (GOLDD™) technology brings true lab-quality performance to handheld XRF analysis. With the ability to quantify light elements without the need for helium or vacuum purging, this remarkable analyzer can provide immediate, nondestructive chemical analysis of titanium, aluminum, and nickel alloys, as well as superalloys, stainless steel, and other alloys that may have light element content. It is the ideal tool for analyzing metal alloys.

Groundbreaking GOLDD technology delivers improvements in light element detection, overall sensitivity and measurement times – as much as 10 times faster than conventional Si-PIN detectors, and up to 3 times more precise than conventional smaller, silicon drift detectors.

These instruments were able to surpass the performance of conventional Si-PIN and SDD detectors by combining our award-winning Niton® XL3t’s 50kV, 2-watt x-ray tube, closely optimized geometry and patented signal processing hardware and software with our proprietary large area drift detector. The end result is GOLDD technology, delivering superior performance in the form of faster analysis, lower detection limits and unparalleled analytical precision.

About Niton XL3t Series Analyzers
The Niton XL3t GOLDD incorporates 80 MHz real-time digital signal processing and dual state-of-the-art embedded processors for computation, data storage, live video processing, and communication and come with many standard features and available options. The standard Niton Data Transfer (NDT©) Software, a suite of data management utilities lets users:

- Customize the instrument
- Set user permissions
- Generate custom reports
- Print certificates of analysis personalized with a company’s own logo
- Remotely monitor and operate the instrument hands-free from a PC or PDA.

Integrated USB and Bluetooth™ communications provide direct data transfer to a PC or networked storage device, eliminating the cumbersome data synchronization procedures required by PDA-based XRF analyzers. The NDT file format preserves and protects the data from each sample analysis, ensuring that this data is not unintentionally or intentionally compromised.

Additionally, users can isolate small areas of interest on a sample using our CamShot™ integrated color CCD camera and optional WeldSpot™ integrated 3 mm small-spot focus feature, and then store the image of the tested area along with the analysis data. This feature is ideal for isolation and analysis of weldments separate from the joined components, to verify proper dilution rate. The Niton XL3t Series offers the only fully-integrated and environmentally-sealed tilting color touch-screen display for easy viewing of sample results in any position and under virtually all lighting conditions. Also, all Niton XRF analyzers use third-generation lithium-ion batteries, providing the longest usage cycle of any portable XRF analyzer.

The Niton XL3t Series is available in a range of configurations and with an assortment of optional features and accessories to suit a wide variety of analytical needs.

For more information or to schedule an on-site demonstration, contact your local representative or contact us directly at (800) 875-1578 (toll-free US), +1 978 670-7460, by e-mail at niton@thermofisher.com, or visit our website at http://www.thermo.com/niton.
Vulcanium Opens FirstCut+® Service Facility in the UK

Belfast, Northern Ireland - August 14, 2009 - Vulcanium Metals International announced that a new titanium warehousing and processing facility will be fully operational in the UK by October, 2009. The facility, located near Belfast in Northern Ireland, will be equipped and staffed to be a state-of-the-art titanium stocking centre which will also provide FirstCut+® services. FirstCut+ Services are a comprehensive suite of first stage processing services and supply chain solutions for reducing costs and improving efficiencies for both customers and suppliers.

Commenting on the new facility, Jerry St. Clair, President of Vulcanium said, “We are creating a ‘Titanium Center of Excellence’ to better serve our global partners. We are reshaping the landscape of the titanium industry by changing expectations in service and value.”

The Northern Ireland facility will support Vulcanium’s business development managers located in the UK—Harvey Pitcher, Michael O’Prey and Richard Leeson, in serving aerospace, medical device and industrial markets across Europe.

Harvey Pitcher, located in Ringwood, Southampton in England, brings to Vulcanium years of experience at all levels of titanium supply chain. His background includes manufacturing approvals, new business development and a successful history of creating value for major aircraft manufacturers.

Michael O’Prey, based in Belfast, comes to Vulcanium with more than 20 years of experience – primarily with Bombardier / Shorts Brothers, in strategic sourcing programs and supply chain management for the European aerospace industry.

Richard Leeson, located in Birmingham, England brings to Vulcanium over two decades of commercial experience in aerospace and industrial metals, and a long history of developing international markets including Europe and Asia.

Simultaneously, Vulcanium also announced the promotion of Jim Ellis to Vice President of Global Operations. Ellis, who has been with Vulcanium since 2006, is instrumental in deploying Lean systems and FirstCut+® services at Vulcanium.

Vulcanium is a leading distributor and processor of titanium, serving the aerospace, medical device and industrial markets in the US and across the world. Vulcanium carries a full line of inventories in sheet, plate, bar and block products of CP, Ti-6AL-4V and Ti-6AL-4V Eli grades. Through its FirstCut+® Services, Vulcanium offers a comprehensive suite of first-stage processing and inventory management solutions to save supply chain costs and reduce manufacturing bottle-necks. Vulcanium is AS 9100 & ISO 9001 Certified. For more information, please e-mail titanium@Vulcanium.com / FirstCut@Vulcanium.com or call 888-326-7556.

ALD Vacuum Technologies GmbH (“ALD”) announces the order of a new Electron Beam Cold Hearth Refining

ALD Vacuum Technologies GmbH (“ALD”) announces the order of a new Electron Beam Cold Hearth Refining (“EBCHR”) melting furnace to Luoyang Sunrui Wangji Titanium Co. Ltd. (“Luoyang”).

Luoyang Sunrui Wangji Titanium Co. Ltd selected ALD’s world leading technology for the purchase and installation of a new 3.6 MW EBCHR-melting furnace for titanium. The multi gun EBCHR furnace will extend Luoyang’s capabilities for producing and supplying Titanium ingots and slabs for mill products.

Luoyang Sunrui Wangji Titanium Co.Ltd is a manufacturer of titanium material and titanium products. It is the second company in China to have a complete, fully integrated process for the production of titanium sponge.

ALD, a subsidiary of AMG Advanced Metallurgical Group, N.V., is the leading global supplier of equipment and services in the field of vacuum process technology. ALD serves customers globally through its branches in North America, Japan, Britain, Russia and more than 70 representative offices around the world. ALD Vacuum Technologies GmbH : www.ald-vt.com A company of the AMG Advanced Metallurgical Group N. V.
The T4 is built with a very rigid structure to reduce cutting vibration associated with titanium. The machine provides X, Y, and Z axis travels of 165in, 78in, and 39in (4,200mm, 2,000mm, and 1,000mm) respectively, and can hold workpieces up to 11,022lbs (5,000kg) for a large stable cutting area. The machine weighs a total of 240,000lbs (110,000kg), providing increased rigidity even in the toughest cutting conditions.

Compact Five-Axis Spindle
The machine’s HSK-A125 spindle is Makino’s most powerful spindle to date, providing higher torque, horse power, and clamping force than all predecessors. It’s compact design combines the latest induction motor technology with twin inverter drive technology for higher torque (740ft-lbs, 133HP continuous; 1,100ft-lbs, 200HP peak). The spindle is supported by roller bearings to ensure high rigidity, which keeps the energy loss to one-half that of conventional gear-driven spindles. The spindle delivers a maximum cutting force of 20,000N and has a maximum speed of 4,000RPM. The A and C-axes increase part accessibility with a ±110 degree A-axis rotation and a 360 degree continuous C-axis rotation.

Increased Speed and Productivity
The T4’s high pressure, high flow coolant system delivers 53 gal/min (200 L/min) of water-soluble coolant at high pressure (7MPa) to the cutting zone for increased chip evacuation from multi-flute tools. The standard coolant system includes overhead shower, spindle nozzle, and through-spindle coolant for direct chip removal from the cutting zone. At high volumes and pressure, the T4’s coolant system provides the sustainable, long-term, dynamic accuracy necessary for large titanium parts.

Additional Features
The T4 can be equipped with an automatic pallet changer system for continuous operations, eliminating costly downtime for part change overs. A standard 60-tool capacity automatic tool changer (optional 120 and 180-tool capacities are available) is equipped for unattended machining capabilities.

The T4 can also be integrated with an automatic pallet transfer and storage system in a highly flexible Makino Machining Complex (MMC) for extended periods of unattended operation. This automation system assigns work and initiates operations automatically, maximizing spindle utilization for increased productivity.

Makino is a global provider of advanced machining technology and application support, where new thinking takes shape for the metal cutting and aerospace industries. Makino manufacturing and service centers are located in the United States, Japan, Germany, Singapore, Italy, France, Korea, Taiwan, Turkey, China, Mexico, Brazil and India, and are supported by a worldwide distributor network. For more information, call 1.800.552.3288, or visit www.makino.com.

Titanium Bridge Design Competition
The Defense Metals Technology Center (DMTC) of North Canton, Ohio, US and the nearby University of Akron are sponsoring a unique academic competition for the design of a pedestrian bridge at the University to be made of titanium. Qualified to participate in the design competition are schools and departments of Civil Engineering, Architecture, and Industrial Design from institutions in what the DMTC calls America’s Metals Heartland - Ohio, Pennsylvania, eastern Indiana, SE Michigan, northern Kentucky and northern West Virginia. The selection committee, composed of NE Ohio business and civic leaders, recently held its first meeting on the Akron campus.

Designing the bridge will help solve a logistical problem at the Quaker Square Inn at the University of Akron, which serves as a dormitory, hotel, and conference center. The complex is fenced-off from the main campus by CSX railroad tracks. This forces pedestrians to use remote bridges that access the main campus. As competition incentive, the DMTC will provide scholarship money to students on the First and Second Place and Honorable Mention teams. Likewise, it will convey grants to the winning institutions for the study of specialty metals in commercial applications. Applications must be submitted by 2 October 2009.
SPECTORE LAUNCHES WEBSITE EXCLUSIVELY FOR ITA MEMBERS

08/09 --Deerfield Beach, FL - Spectore Corporation, a Florida based titanium jewelry manufacturer, is pleased to announce the launch of a specialty Ecommerce site specifically for the ITA member companies. It will be available in September, 2009. This site will offer members substantial discounts, additional group rate considerations, and incredible markdowns on overruns and merchandise being replaced from the prior year’s collections.

During its more than 25 year history, Spectore has been a committed attendee, presenter, exhibitor, and supporter of the ITA Conference. As a leading designer and manufacturer of contemporary metals jewelry, the company proudly exhibits its creative product. In the early years, this inventive introduction for the use of titanium was both a surprise and a source of amusement to many within the metals industry. It soon became evident by the number of returning, delighted visitors at the Spectore booth each year that the industry overwhelmingly approved and appreciated this new approach to small-scale manufacturing of titanium.

Mirella Connor, Owner and Executive Officer, of Spectore said, “The ITA is a globally respected association with which we are proud to be affiliated. Over the years, it has been a source of inspiration and an invaluable resource for information. We are grateful to have found an aesthetic application for titanium which is so far removed from its commonly known uses, such as in aerospace and medical. And we’re very excited to be able to offer our ITA member friends an ecommerce site of Spectore/Edward Mirell titanium jewelry. The opportunity to share our inventive fashion product with a captive audience who can truly appreciate the wonderful properties of this metal is awesome.”

Be sure to visit us in September at http://www.spectore.net/ITA

NEW LOOK AEROMET AT TITANIUM 2009

Reinforcing its position as a global supplier, of titanium fabricated products and light alloy castings to the aerospace and defence industry, UK based manufacturer Aeromet International Plc has recently launched its rebranding programme and new website www.aeromet.co.uk.

Chief Executive Jeff Smith explains: “Aeromet is a trusted supplier to major aerospace and defence companies around the globe. Our corporate rebranding emphasises the positive approach we take in this continuously demanding industry. The new brand reinforces the forward thinking organisation that Aeromet has become over the last 15 years, whilst our new website highlights our competencies in both the titanium forming and light alloy casting divisions. Titanium 2009 is the premier titanium conference to promote the scope and versatility of our business and we’re delighted to have a presence here.

“Our new corporate identity announces to the marketplace that we are a manufacturing organisation that is driving forward innovation and creativity head on. Our customers, old and new, will recognise that our new logo symbolises years of competence, certainty and quality wherever in the world that is.”

See Aeromet at Titanium 2009, stand 41

Contact details: Graham Hutchins, Marketing Manager, Graham.Hutchins@aeromet.co.uk – Aeromet International Plc produce titanium fabricated products and light alloy castings to the aerospace, military and defence industries from its 4 sites in the UK. Split into two divisions; Forming and Casting, Aeromet employ 420 people with annual sales of £35m. Aeromet hold NADCAP, AS 9100 2000, BS EN ISO 9001 and ISO 14001 approvals, as well as approvals from many of the world’s leading aerospace and defence companies. For more information see www.aeromet.co.uk or write to: Aeromet International Plc, Watchmead, Welwyn Garden City, Hertfordshire AL7 1LT, England
New Peeling and other Cold Finishing Equipment from DANIELI

With a 5 Billion US$ annual turnover (2008), the Danieli Group is one of the top 3 biggest suppliers of machinery to the steel industry worldwide. Already known in the titanium industry for the supply of rolling mills to produce coil and bar from billets, forging presses and slab grinding plants, the Danieli group is now expanding its titanium activities further through their cold finishing equipment division Danieli Centro Maskin.

The Danieli cold finishing division produces a wide range of equipment that cover the processes of peeling, drawing, cut to length, straightening, chamfering, packaging and all associated equipment.

Particularly relevant to the titanium industry due the very high final product quality standards required, the Centro Maskin range of peeling machines is being further developed in response to the many requests received from titanium producers. Through peeling, all surface defects are removed from both coil and bar, ensuring a 100% quality guarantee that is essential for downstream use of the product, particularly for aerospace, automotive and military applications. Coil to coil, coil to bar and bar to bar peeling configurations are possible.

With over 35 years cold finishing equipment manufacturing experience, the Daniel Centro Maskin peeling machine range incorporate unique design technology that ensure fully automatic size changeovers in less than 3 minutes (essential for short manufacturing runs) and guarantee 24/7 machine operation while also ensuring an h8 material dimensional tolerance of the peeled coil or bar.

Due to the high tooling wear that cannot be avoided when peeling titanium, the patented Danieli tooling adjustment system allows automatic fine adjustment of the position of the cutting tools in response to the tolerance of the finished bar that is continuously measured by laser with a closed loop feedback circuit.

For USA enquiries contact Danieli Corporation USA (Bob Smith Tel: (724) 778 5448; r_smith@danielicorp.com). For all other enquiries contact Danieli headquarters in Italy (Kristiaan van Teutem, Tel: +39 04321957295; k_vanteutem@danieli.it)

TITANIUM 2009 Conference Proceedings

Available on October 1, 2009

Conference Attendees: Free
ITA Members: $125
Non-Members: $245
Move to High-Tech Site Planned for Sims Metal Management Aerospace

Sims Metal Management Aerospace is moving from the west side of the City of Hartford, Conn., to the east side – a move that is less than five miles in terms of distance but is light-years in terms of the technological advances and efficiencies it makes possible.

According to James M. Nathan, President of Sims Metal Management Aerospace, the move will enable the company to achieve a state-of-the-art, green and lean super-alloy processing center. “At Sims Metal Management Aerospace, we always try to stay ahead of the curve, not behind it. That is why we are looking far beyond the short-term global challenges, no matter how severe they are,” he said. “We are looking long-term, anticipating the changing requirements of our clients and the advances in recycling technology.”

In 1899, 110 years ago, the company started in a large barn on North Street where six horses were stabled along with the wagons for collecting scrap. “Since those early days, metal recycling has advanced enormously,” said Mr. Nathan. “It has always been one of the most environmentally essential components of our economy, because it returns usable metal to industry to be used for other products – everything from refrigerators to bridges. In the future metal recycling will become even more critical.” This is particularly true of titanium because for every pound used to manufacture a part such as a fan blade for a jet engine, at least nine pounds of scrap are machined away. This is true for other metals as well, such as nickel, cobalt, molybdenum, chromium, and tungsten alloys, but the percentage that is machined away is less. “Our new headquarters will give us the chance to bring all our operations together under one roof and to install new innovative technologies for metal recycling,” said Mr. Nathan.

The new 425,000 square-foot facility is located at 239 West Service Road in the North Meadows area of the city. The move will be staged over two years beginning in the second quarter of 2009. “In the 21st century, we need to be very responsive to the changing needs of our customers, ensuring high quality products at competitive prices. The move and expansion will allow us to do that,” said Mr. Nathan.

In October 2008, Governor M. Jodi Rell said, “This is a project that could have easily located out of state. But we worked closely with the company and the city to make sure Sims Metal Management Aerospace’s short and long-term business needs were being met. Sims Metal Management Aerospace is a great success story and our investment will pay dividends for years to come.”

Metal Industry Acquisition: Hempel Special Metals GmbH takes over Edelstahl Service Betrieb GmbH from HEINZ GOTHE GmbH & Co. KG of Moenchengladbach (Germany)

- Acquisition stimulates the metal processing industry
- Hempel Special Metals consistently strengthens its market position
- Family run Company Groups further intensify their cooperation

OBERHAUSEN/MOENCHENGLADBACH, xx. September 2009. Hempel Special Metals GmbH (HSM) the Oberhausen (Germany) operating materials specialist has taken over Edelstahl Service Betrieb GmbH (ESB) the Moenchengladbach (Germany) company. ESB was a part of the HEINZ GOTHE GmbH & Co. KG, tube manufacturer and fabricator in Moenchengladbach-Rheydt (Germany). HSM is part of the international F.W. Hempel & Co. Group of companies.

The acquisition will stimulate the metal working industry in the Rhine-Ruhr region: „We are strengthening our position in the processed and pre fabricated parts market segment “, states André Hempel, CEO of Hempel Special Metals Group: „HSM is consistently expanding its business in corrosion resistant alloys, nickel alloys and titanium”.

ESB’s material and processing programme will complement HSM’s own products and services. The Moenchengladbach facilities produce blanks by modern cutting methods, eg, plasma, laser and water jet technology. Plate bending, shearing, and plate punching complement these processing services.

HSM has already developed a strong international position as a distribution specialist for high performance metals and alloys. „The acquisition of ESB is a further step forward to establish ourselves as a “turnkey supplier”, says Hempel. The Oberhausen company not only
Titanium Industries Drives Metal/Alloy Diversification

Titanium Industries Inc. (Rockaway New Jersey) has announced after over 35 years of exclusive titanium distribution, the addition of nickel based and other non-titanium alloys to support the aerospace, oil and gas, medical, and general industrial markets. This diversification will provide excellent growth opportunities as we move into an era where key markets demand lighter weight, stronger and more corrosive resistant alloys.

In aerospace, future demands of larger and more titanium intensive Boeing and Airbus planes will require many other high strength alloys with increased heat resistance. The airframes will require high strength and non-corrosive components and fasteners and the engines will require increased heat resistant alloys in order to operate with greater fuel efficiency. Also, the Titanium Industries/UTC Long Term Agreement which includes titanium, nickel, steel, stainless steel, aluminum, beryllium, cobalt, iron, copper, carbide and magnesium, allows Titanium Industries increased alloy growth and global reach.

Oil and gas customers continue to require stronger and more corrosive resistant alloys as exploration and drilling, plus production occur in more demanding environments. Long term prospects remain strong and sound for many years to come as global demand for energy rises.

Reconstructive and medical implant activity will grow as medical companies reach globally to parts of the world with tremendous populations and increasing demands on quality of life. Currently, the medical market is over $35B annually and is expected to grow long term year over year. Reconstructive and medical implant procedures require alloys with excellent corrosion resistance and biocompatibility, that includes stainless, cobalt – chrome alloys and titanium.

The outcome of alloy diversification within key global markets will lead to strategic growth and long term stability.

Direct Alloys LLC Industry Press Release Database

Direct Alloys LLC is pleased to announce the expansion of its online specialty metals press release database. The Direct Alloys Online News Database contains listings of current and historical press releases from over 100 major companies throughout the industry. This extensive resource includes fully searchable categorized press release headlines with direct hyperlinks to the original releases. Direct Alloys clients are welcome to register to receive periodic email updates of important industry press release headlines.

Direct Alloys LLC is an independent online clearinghouse of specialty alloy mill products including billet, bar, sheet, and plate. The company currently lists over 175 titanium products with a total weight of 400,000 lbs. These titanium alloy billet, bar, sheet and plate are available from major manufacturers, users and distributors throughout North America and Europe. For more information about Direct Alloys LLC, please contact sales@directalloys.com or visit www.directalloys.com.

Reorganization of ThyssenKrupp Continued From Page 5

ThyssenKrupp VDM and ThyssenKrupp Titanium, both companies of the ThyssenKrupp Stainless group (Duisburg/Germany), are world-leading suppliers of high-performance materials. ThyssenKrupp VDM has around 1,750 employees at production sites in Werdohl, Altena, Unna and Siegen (all Germany) and in the USA. It also has a global sales and distribution organization. In 2007/08 the company shipped roughly 43,000 metric tons of nickel alloys and high-alloy special stainless steels. ThyssenKrupp Titanium has production facilities in Essen (165 employees) and Terni (140 employees) and manufactured around 4,300 tons of titanium products in the past fiscal year.

For more information contact: ThyssenKrupp Stainless AG, Erik Walner, Head of Corporate Communications, Tel.: +49 203 52 - 45130, E-mail: erik.walner@thyssenkrupp.com
ITA Today Page 16

ITA To Install Two New Board Members

Lawrence D. Buhl III, chief executive officer, Lawrence Holdings Inc., and Graham P. Walker, vice president and general manager of Reading Alloys Inc. (an AMETEK Co.), have been tapped to fill two vacancies on the board of directors for the International Titanium Association (ITA), Broomfield, CO.

Buhl and Walker will be officials voted in at the ITA’s Sept. 16 annual meeting of the members in Kona, Hawaii. Paul O. Jones of Reading Alloys is stepping down from the ITA board after six years of service, while Terry Perles of Stratcor Inc. is leaving after four years.

A specialty metals distributor, Lawrence Holdings manages Snappy Materials LLC, TICO Titanium Inc., Supra Alloys Inc. and Alloy Metals. Those business units have distribution operations in California, Connecticut, Delaware, Michigan and Texas. Buhl has a bachelor’s degree in Science and Finance and a Masters of Business Administration degree from Babson College, Babson Park, MA.

George J. Esseff Jr., the president of Lawrence’s Supra Alloys unit, in a letter of recommendation to the ITA, said Buhl’s business experience “puts him in a good position to provide the perspective of the distribution side of our industry.” Esseff went on to say Buhl is committed to developing new markets for the titanium business.

Baldwin Wallace College, Berea, OH.

Jones, in another letter of recommendation, praised Walker for his leadership, intellect and dedication to the titanium business. “(Walker) has an international perspective and has served in the titanium industry since joining Reading Alloys nine years ago. He has volunteer for and served on various ITA committees, demonstrating his commitment to our organization.”

Jennifer Simpson is the ITA’s executive director, while Frank L. Perryman, president and chief executive officer of Perryman Co., Houston, PA, is the president of the ITA. Michael Metz, president of VSMPO Tirus US, Highlands Ranch, CO, is the vice president of the ITA. Brett Paddock, the president and chief operating officer of Titanium Industries Inc., Rockaway, NJ, is the ITA secretary and treasurer. Edward F. Sobota Sr., president and chief executive officer of TSI Titanium, Derry, PA, is the past president of the ITA.

Other ITA board members include James M. Buch, vice president, commercial, Titanium Metals Corp. (Timet), Dallas; Hunter Dalton, president of ATI Allvac, Monroe, NC; Dawne S. Hickton, vice chairman and chief executive officer of RTI International Metals Inc., Pittsburgh; William Kent, vice president, Dynamet Inc. and Carpenter Powder Products, Wyomissing, PA; Dr. Markus Holz, chief executive officer, ThyssenKrupp Titanium Group, Essen, Germany; Edward J. Newman, senior vice president, Keywell LLC VacAir Division, Frewsburg, NY; and Daniel Buwalda, plant manager of the Howmet Titanium Ingot Operation, Alcoa Power & Propulsion, a business unit of Alcoa Investment Cast and Forged Products, Cleveland.

ITA Accepting 2010 Nominations

The ITA is seeking nominations for the 2010 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. Complete details as well as the nomination form can be downloaded directly from the ITA website at www.titanium.org.
size. It was the first time such products were displayed in the US, Takuji Horie, Horie Corp. president and chief executive officer, said (while interviewed through interpreter Hiroaki “Hiro” Kotaki).

Weighing only 70 grams (about 2.5 ounces), the beer vessels, when held, were light and elegant. According to company literature, the beer cups carried a wholesale price of $30 each, while the saki cups were $19 apiece (but it was unclear if these prices would be the true per-cup cost in the US market).

Being faithful to the spirit of wabi, the beauty of these cups required an insightful second look. The polished, silvery surface of the beer cups featured illustrations depicting dragons, tigers, carp and the fanciful Japanese male and female characters known as Ukiyoe Sharaku and Utamaro. The delicate, grainy etched images had a subtle gold tint that caught light and shifted in tone when held at various angles.

These artistic images represented the beauty of the proprietary technology developed by the company. Horie and Kotaki would only describe the “titanium surface engineering” technology as a chemical etching process—a technique that went far beyond industrial anodizing. In fact, the benefits of this surface engineering extended to the inner lip of the cup, as a gentle texturing is designed to enhance the foamy beer head. TitaniuMall, the online sales agent for Horie (www.titaniumall.com) referred to the technology as “anodized oxidation coloring” and “grain-growth pattern” etching.

As for its North American marketing strategy, Horie and Kotaki said the company was seeking a “communication sales” agent—a strategic partner that would represent the Horie items to retail outlets. “We are currently looking for the best distributor in the United States to market our products,” Horie said. In addition, the hope is the products would appeal to Internet shoppers.

Horie, which also produces medical components and industrial products such as automotive and motorcycle exhaust pipes, displayed a host of CP titanium household products at the International Gift Fair, which demonstrated the company’s expertise in coloring, etching and surface treatment. Products exhibited at the company’s booth included a cheese and veggie grater; spoons and forks; cup coasters; decorative wall tiles; “designer” mugs; computer mouse pads; pill cases, business card holders; hair combs and sticks; letter openers; and jewelry—all made from titanium.

Three items were especially eye catching at the company’s show booth. First, Akemi Tanabe, Horie’s director of planning and sales and trading department export/import manager, demonstrated a titanium facial cleaner. Ergonomically designed like a palm-sized, pear-shaped bar of soap, it’s micro-granular surface texture provides gentle exfoliating. “I use it every day,” Tanabe said, holding it to her face and flashing a smile, as though she was filming a TV commercial.

Second, Horie’s line of titanium “gold,” stovetop pans and woks, which employ a stick-resistant, surface-film treatment, are designed to focus heat at the bottom of the pan while the side walls remain cool. The pans, surprisingly light, were listed in a wholesale price range of $45 to $68.

Third and perhaps most dazzling was a 1/500 scale model of the vintage Graf Zeppelin airship, which the company marketed as a collectable, with a price tag of $980. Though “wire-like” in appearance (depicting the skeletal frame of the blimp), Horie proudly declared the model was fabricated from titanium sheet via the proprietary etching process. The model’s sparkling strands were 0.6mm thick and had tiny propellors that spun. Horie demonstrated the propellors’ functionality by politely blowing on the miniature fan blades.

Founded in January 1984, Horie initially worked as a precious-metal galvanizing company. By 1991, the company shifted its entire business to titanium. It was, however, able to adapt much of its precious-metal expertise in surface-treatment technology—such as polishing, anodized coloring, grain growth and etching—to suit titanium applications, Horie said. He cited Nippon Steel Corp. and Sumitomo Metal Industries Ltd. as the company’s primary titanium suppliers.

Horie, which has 20 employees, averages annual sales of 340 million Japanese Yen (about US $3.4 million). Horie said that, along with looking to carve out a niche in North America, his company is actively pursuing business in the Chinese market, but he declined to elaborate on his plans.
ITA Today Page 18

2009 Award Recipients

Robert Hill
President
Solar Atmospheres of Pennsylvania

Recognized for outstanding contributions to the advancement of technology and applications in the titanium industry.

Gus Pietsch
Director Mechanical Design/ Special Product Design
Hydroscience Technologies

Recognized for designing and implementing titanium into subsea components for the geophysical seismic industry.

ITA TO HONOR ACHIEVEMENT, APPLICATIONS AWARD WINNERS AT TITANIUM 2009 FORUM

The International Titanium Association (ITA), Broomfield, CO, making final preparations for its yearly conference, has tapped Robert Hill Jr., president, Solar Atmospheres of Western PA, and Gus Pietsch, the director of mechanical specialty design and part owner of Hydroscience Technologies, as the recipients of the organization’s two major annual awards.

Hill garnered the ITA’s Titanium Achievement Award, citing him as a leader and pioneer in developing vacuum-thermal processing solutions for the aerospace industry, while Pietsch (pronounced “peach”) is the winner of the Titanium Applications Development Award, in recognition of his achievements for designing and utilizing titanium in subsea components for the geophysical seismic industry.

The two award winners will be lauded by ITA officials at TITANIUM 2009, the industry’s annual international forum, which will be held Sept. 13-16 at the Hilton Waikoloa Village, Hawaii. Jennifer Simpson is the ITA’s executive director, while Frank L. Perryman, president and chief executive officer of Perryman Co., Houston, PA, serves as ITA president.

Achievement Award Winner

The ITA’s Achievement Award recognizes outstanding contributions to the advancement of technology and applications in the titanium industry. Twelve men have received the prestigious honor during the last nine years. Recipients must demonstrate a body of work that has helped to enhance the titanium sector.

“We reviewed a number of highly qualified nominees and the individual that clearly rose to the top was Robert Hill,” said Dan Buwalda, plant manager, Alcoa Power and Propulsion, Whitehall, MI, the chairman of the Achievement Award selection committee. “He is recognized as a pioneer in developing titanium vacuum-
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.

Benefits of this course include:
- Students receive a certificate of completion from the International Titanium Association. Students will have 16 weeks to complete the course at their own pace and leisure.
- 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.

Cost is only
$249 for ITA Members
$325 for Non-Members

To learn more about this exciting new workshop visit: www.titanium.org

International Titanium Association
2655 West Midway Blvd., Suite 300
Broomfield, CO 80020 USA
ita@titanium.org
Thermal processing solutions for the aerospace industry.

“I am completely thrilled, feel blessed and supremely honored to win this award,” Hill declared. “Considering my years of work in the titanium market, this award represents the pinnacle of my achievements.”

Solar Atmospheres of Western PA is a unit of Solar Atmospheres Inc., Souderton, PA.

A member of American Society of Materials’ (ASM), Hill—in a career that spans three decades—has specialized in the development of large vacuum furnace technologies and titanium processing systems for Solar Atmospheres. Nine years ago he launched the company’s 60,000-square-foot facility in Hermitage, PA.

By way of comparison, Hill noted he recently captured ASM’s William Hunt Eisenman Award, but considered the ITA award to be even more significant for him. Why? “Because Solar Atmospheres’ has built its business on titanium here in western Pennsylvania,” he said. “Titanium is a big part of what I’ve done throughout my professional life.” Hill is slated to speak on the heat treating/testing panel at TITANIUM 2009.

The Hermitage site houses 13 vacuum furnaces including one that measures 36 feet in length. Hill and his associates pioneered the dual-loading “car-bottom” furnace design, which is shaped like a rail car with a total weight capacity of 150,000 pounds. A major portion of the plant’s business is devoted to the heat treating large structural parts for Boeing’s 787 program. Hill touted Hermitage as the only North American facility approved to meet Boeing’s Beta Anneal Slow-Cooled Aged (BASCA) 160 specifications, which involves the vacuum heat treating of forged parts using VSMPO’s Ti 5553 alloy.

Applications Development Award Winner
Pietsch will receive a check for $20,000 at TITANIUM 2009. Brett Paddock, president and chief operating officer of Titanium Industries Inc., Rockaway, NJ—the chairman for the Applications Development selection committee—said the award recognizes individuals who create innovative devices and components using titanium. The award looks to inspire designers and manufacturers to specify the metal as a material of choice, which, in turn, boosts business for the titanium market.

“I like to take an idea from scratch and then build a finished product for a specific application,” Pietsch said. His company, Hydroscience Technologies, is based in Mineral Wells, TX. “I enjoy working with customers and I’m constantly looking to design new products. I was very excited and very surprised when I learned I had won this award from the ITA.”

Scott Steele, a Texas-based sales representative for Titanium Industries, who nominated Pietsch for the award, said “Gus has been instrumental in designing and implementing titanium into subsea components for the geophysical seismic industry. His cutting-edge designs for locking devices and connectors make his products interchangeable and easy to handle out in the field. His designs have revolutionized the undersea geophysical field.”

Pietsch described the Hydroscience application as a titanium cylinder with end caps, 10 inches long and three inches in diameter, with multiple (up to 16) polyurethane, jell-filled “streamers” attached to the unit. The titanium module, which houses various sensors and electronic devices, is towed by a deep-sea ship to explore areas beneath the ocean floor. The module collects data and records signals that are transferred to a computer onboard the host ship. This information then is analyzed by geologists to map out undersea salt domes and oil and gas pockets—potential sites for energy exploration.

2010 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. For more information on how to submit a nomination visit the ITA website at www.titanium.org.
2009 New ITA Members

Associated Tube Group
The Associated Tube Group, a division of Samuel Manu-Tech Inc., is a premier North American supplier of welded stainless steel tubular products. Manufacturing facilities in Canada, Mexico and the U.S.A. supply LaserTube®, T.I.G. welded and cold-drawn stainless steel, high nickel alloys and titanium tubular products globally. The Associated Tube Group can provide tubular solutions for your most demanding requirements.

Baoji Ronghao Titanium Industry Co., Ltd.
Baoji Ronghao Titanium Industry Co., Ltd was established on August 15th, 2006. The company is specialized in manufacturing, processing and sales of titanium material. We mainly provide: titanium bars, plates, sheets, tubes and wires. We can also offer Nickel material and titanium copper materials. With faith of survival by quality, development by technology, market by credibility, we kindly welcome all the friends around the world.

Bruker AXS Handheld Inc.
Bruker AXS Handheld is an established manufacturer of easy to use handheld XRF analyzers which provide chemical analysis of any sample in any location. The S1 TURBO is a silicon drift detector (SDD) based analyzer which will provide very rapid alloy analysis and identification. The S1 TURBO LE is capable of analyzing elements from magnesium to the transuranic elements and can be taken to the sample in any location. This XRF analyzer is capable of measuring the aluminum content in titanium alloys without the use if vacuum or a He environment.

CALIFORNIA TITANIUM, LLC
California Titanium, LLC is a distributor which provides Titanium Sponge, Ingot, and Mill Products to China and North, Central, and South Americas. Our mission is to satisfy all of our customers’ needs with high quality products, excellent service, competitive prices, and on-time delivery.

Chaoyang Jinda Titanium Co., Ltd.
Chaoyang Jinda Titanium Co., Ltd., A subsidiary of Chaoyang Jinda Group, specialize in manufacturing high purity titanium sponge in lower content of oxygen (0.04%), lower carbon (0.005%) and lower hydrogen (0.0007%). Production is 6000 MT per year.

GIE Media Inc.
The Industrial Division of GIE Media publishes three manufacturing b to b magazines: Aerospace Manufacturing and Design, Today’s Medical Developments and Today’s Energy Solutions.

All three publications are manufacturing oriented and provide insight into the latest developments in material selection, production processes, equipments and tooling and measurement and automation.

Kocks Pittsburgh Company
Supplier of precision hot rolling mills for the production of Titanium Rod, Bar and Tube.

Quad Engineering Inc.
Quad Engineering is a well established company supplying engineering services and equipment for the metals industry, including the titanium industry.

Established since 1984 in the branch of Titanium, and High Pure Metals Alloys, the REALUM specializes in the distribution of its products for applications in chemical, petrochemical, pulp and also in the medical field. Our proposed work is to provide our customers the materials based on specific standards of each product 4 years ago, the REALUM built his new home with 1,500 square feet, in order to specialize further...
2009 New ITA Members

in the segment of Titanium, winning international certifications, dividing the company into applications by type of metal, and expanding the diversity of products being offered.

**ReMelt Scientific, Inc.**

ReMelt Scientific, Inc. is a global supplier of Titanium Chip Melt Preparation Systems and equipment. We also offer complete Engineering Services associated with Titanium Chip Melt Treatment Lines. We specialize in titanium and high temperature alloy chip crushing, centrifuges, aqueous and solvent chip cleaning systems, thermal drying, fines screening and separation, batch and continuous weighing units, alloy mixing and blending and briquetting equipment.

**Rock Island Arsenal**

Joint Manufacturing & Technology Center

**Saigon Quynhon Mining Corporation**

As a leading company in Vietnam titan slag field Saigon Quynhon Mining Corporation (SQC) located in the central of Vietnam. Factory area is 100,000 m2. The staff total is 294. The annual productivity ar 36,000 MT titan slag and 18,000 mt iron.

**Sunbeam Speciality Alloys Limited**

We are manufacturing titanium valves and parts. We serve both the chemical and marine industry. We would like to expand our business by setting up new casting division for titanium.

**Xiamen Sailing Precision Hardware Manufacture Co., Ltd.**

Set up in 2000, Xiamen Sailing Precise Hardware Manufacture Co., Ltd. is situated at Haicang District, Xiamen, Fujian, PRC. It has adopted domestic and international advanced production equipment and put out all kinds of precise titanium hardware and auto accessories for electron, electrical appliance, eyeglass, instrument, automobile, machinary, body-building equipment and other industries.

**Zirconium Research Corporation**

Resellers of scrap zirconium, titanium, and all other refractory metals.

**Saigon Quy Nhon Mining Corporation**

SQC - Saigon Quy Nhơn Mining Corporation belongs to SGI - Saigon Invest Group. It is one of the Vietnamese leading and most successful multifaceted public groups. It operates in six industries including Real Estate; Banking and Finances; Telecommunications; Energy and Mining; Manufacturing and Construction and Tourism and Education in Viet Nam with total assets amounting to $ US 2 billion. SGI has been well known as a private owned group successful in integrated period. Strikingly, so many certificates of merit granted by Prime Minister, Ministries and Local Authorities were awarded to SGI member companies for their remarkable achievements and significant contributions to the national socioeconomic development.

The SQC Titanium Slag Factory is located on a defined area of 10 ha in the Central of Vietnam where possesses ores with rich titanium deposits. In addition to three furnaces (6300kVA) of advanced technology designed, we own the modern facilities along with the qualified staffs that can meet all requirements from the customers.

The latest technology in Southeast Asia is applied in the production line. All of the furnaces are automatically operated. The total capacity in running 2 furnaces has reached 24,000 tons of titanium slag and 12,000 tons of pig iron per year. It is easy for us to assembly the designed the 3rd furnace depending on the market requirements.

Our titanium slag product is adjusted from 76% up to 93% of titanium which allows applying both sulphate process and chloride process for titanium dioxide. The quality of our product is high and stable due to the feedstock is extracted from the region of the
offers standard semi finished product, but is also selling more and more processed and pre fabricated parts.

HSM operates a world wide sales network and has international market know-how for various industrial applications. ESB can now take advantage of that. „The company will get the opportunity to expand its successes into export markets and to enter into new market segments“, says Hempel. That includes for example processing of high heat and corrosion resistant alloys, of nickel and titanium. HSM already has a leading position in this market segment.

For many years the Moenchengladbach Gothe-Group has been one of HSM’s key customers. Both family-owned Groups wish to further intensify their cooperation. The former daughter company ESB will continue providing Gothe with processed parts and further support their tube sales. „The transaction confirms and extends the long standing close cooperation between the family-controlled Company Groups Hempel and Gothe“, says Hempel. „To the benefit of both companies the strengths of HSM and ESB are merged”

The acquisition was concluded by the notarized transfer of shares on August 31, 2009

**The Companies:**

Hempel Special Metals GmbH (further information on www.hempel-metals.com) - Hempel Special Metals GmbH located in Oberhausen is a Division of F.W. Hempel & Co. Group of Companies of Düsseldorf who have been in business over 50 years. The family owned and managed Group has world wide activities in the fields of raw materials and semi finished products, trading and production/recycling. HSM stocks and processes corrosion and heat resisting stainless steels, nickel alloys, titanium and titanium alloys in different locations in Europe and Asia.

HEINZ GOTHE GmbH & Co. KG (further information on www.gothe-edelstahl.de) - The Gothe-Group produces tubes, tanks, process equipment and installs them. Customers are in the paper, chemical and food industries as well as having markets active in the environment, power generation and the process industries. The company was founded in 1920 in Dueren (Germany). From 1945 the company has operated from Moenchengladbach-Rheydt.

Edelstahl Service Betrieb GmbH (further information on www.esb-mg.de) - The Moenchengladbach company sells corrosion and heat resistant alloys from stock, cuts and processes them in their own service centre and produces pre fabricated parts. Processing stainless plate and sheet on the companies’ own plasma, laser and water jet equipment, bending facilities, and shearing are the major areas of business.

ESB supplies to fabricators, machinery and construction companies, as well as the building industry. The company achieved a turnover of 15 Million Euro in 2008 and employs 22 people.

**Contact for the press:**

André Hempel, CEO of Hempel Special Metals Group
E-Mail: Andre.Hempel@hempel-metals.com

---

We can supply with 1.500- 2.000 tons a month, even more if it is needed. Slag is packed as required.
For further information, please contact: Mr. Chau Kin Hang Kelvin, Email: kelvinchau_sqc@saigoninvest.com or phone: +84 9 0888 0128
Zak Enhances Their Capabilities With The Purchase of 5-Axis Mazak Integrex e1850

(Green Island, NY) - Zak Incorporated announces the recent purchase of a Mazak Integrex e1850 machining center. By far the most advanced multi-tasking machining center of its size, Zak’s latest enhancement to their capabilities allows them to offer up to 15% cost savings, 15% cycle reductions, real time inspection and much more. All operations can now be completed in a single setup; turning, milling, boring, drilling and inspection. Now Zak can apply the “Done-in-One” machining concept to larger, more complex parts.

- 92.5” Swing x 70.8” height
- Dual Pallet
- Full 5 Axis Machining
- 10,000 RPM Spindle, 60 HP
- Through Spindle Cooling
- Single Setup Even Large Parts
- Off-Center Y-axis Machining
- Continuous B-axis Positioning

Zak Inc. is a family owned machine shop and specialty weld fabricator that designs, fabricates and repairs copper crucibles and molds. Zak Specializes in copper fabrication and large precision machining requirements for parts up to 180” in diameter. Established in 1937 Zak Inc. has spent decades helping customers find solutions to their problems and working hard to save their customers time and money through continuous improvement.

Contact Scott Mitchell at 518-273-3912 x16 or SMitchell@zakinc.com
Job Postings:

**Sales Representative**
CALIFORNIA TITANIUM, LLC, of Redondo Beach, California, is a distributor of titanium sponge, ingot, and mill products for import and export. We are seeking Sales Representatives to work on a commission-only basis to help us build our North American and South American markets. Please send resume and statement of interest to Robert A. Maynez, President.

CALIFORNIA TITANIUM, LLC
720 Elvira Avenue, Suite 301
Redondo Beach, CA 90277
Tel: (310) 683-8004
Facsimile: (310) 543-2138.
Email: rmaynez@caltitanium.com

Research Staff Member for Titanium and Titanium Alloys:
Oak Ridge National Laboratory in Oak Ridge, TN is seeking a Researcher for the Materials Science & Technology Division. The ideal candidate should have a Ph.D. degree in Materials Science or other related degree and at least one (1) year experience post Ph.D. Experience with powder metallurgy and/or titanium alloys is critically important. The position has the responsibility for the conception, project development, planning, execution and reporting of research programs in the area of titanium and titanium alloys. Research and development activities will include the solid state processing of titanium and titanium alloy materials and powders including technologies such as hot pressing, press and sinter, hot isostatic pressing, roll compaction, heat treatments, attrition, and other powder metallurgy processing practices. To apply, please go to http://jobs.ornl.gov/ERecruiting.shtml select “View Open Positions” then, enter NC50135752 in the “Key Word Search”.

Material For Sale:
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

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, petrol-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

Contact: 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>Material</th>
<th>Quantity</th>
<th>Size</th>
<th>Material Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gr.5 1.8<em>1000</em>2000mm</td>
<td>2195kgs/137pcs</td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 1.6<em>914.4</em>2438 181kgs/11pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 1.8<em>914.4</em>2438 692kgs/38pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 1.8<em>914.4</em>3048 136kgs/6pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 2.03<em>914.4</em>2438 992kgs/50pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 2.03<em>914.4</em>3048 537kgs/21pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 2.286<em>914.4</em>2438 639kgs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
<tr>
<td>Gr.5 2.286<em>914.4</em>3048 529kg/18pcs</td>
<td></td>
<td>MIL-T-9046J/AMS 4911H/DMS1592F/ASTM B265</td>
<td></td>
</tr>
</tbody>
</table>
**Classified Ads**

4911H/DMS1592F/ASTM B265  
Gr.5 6.35"x14.4"x3048 241kgs/3pcs MIL-T-9046J/AMS  
4911H/DMS1592F/ASTM B265  
Gr.5 0.813"x14.4"x2438 750kgs MIL-T-9046J/AMS  
4911H/DMS1592F/ASTM B265  
Gr.5 0.813"x14.4"x3048 460kgs MIL-T-9046J/AMS  
4911H/DMS1592F/ASTM B265  
Gr.5 1.27"x14.4"x2438.4 500kgs MIL-T-9046J/AMS  
4911H/DMS1592F/ASTM B265  
Gr.5 1.27"x14.4"x3048 342kgs MIL-T-9046J/AMS  
4911H/DMS1592F/ASTM B265  

For more information, please visit our website (stocklist) for more information. 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: 0086-22-82166882-600  
Fax: 0086-22-82101337  
Mobile: 0086-15900351445  
Email: celia.qi777@gmail.com  
Website: http://www.tjht2928.com

-----------------------------------

**Facility Expansion Allows For Superior Quality Service**

For over 30 years TSI Titanium has provided the highest quality titanium mill products for aerospace, medical, chemical and other commercial users of titanium. TSI is firmly committed to being the industry leader in technological innovation, manufacturing excellence and customer service. Work has been completed on a $5 million expansion of the bar finishing capabilities that give TSI Titanium the most modern, state-of-the-art titanium bar finishing facility in the country.

**The expansion includes:**
- a 28,000 square foot finishing facility
- the design, construction and installation of a Medart No. 18 Bar Peeler and a Medart No. 18 Bar Polisher, the largest of their kind in the country
- two Kasto large-capacity, auto-indexing band saws

**TechSpec Inc.**
P.O. Box 69  ■  718 Y Street  
Derry, Pennsylvania 15627  
Phone: 724/694-2716  
Fax: 724/694-5305  
Web site: TSITitanium.com

**Use Our Experience To Your Advantage**

**PRATT & WHITNEY AND PRATT & WHITNEY CANADA LCS APPROVED**

**California Titanium, LLC,** of Redondo Beach, California, is a distributor of titanium sponge, ingot, and mill products of a variety of grades and sizes. Please visit www.caltitanium.com for products and quotes. You may also contact us directly at (310) 683-8004, Fax: (310) 543-2138, or sales@caltitanium.com.
GfE Metalle und Materialien GmbH

GfE is a leading manufacturer and global supplier of high performance metals and materials. With almost one hundred years experience in the field of materials science, the company uses this invaluable expertise in the development of tailor made materials, customized applications and solutions for our customers. GfE offers a wide range of high quality products for different specialized sectors such as:

* Aerospace industry
* Superalloy industry
* Automotive industry
* Power plants
* Chemical plants
* Off-shore technology and other applications

-------------------------------

Luxembourg Company of Metal and Alloys S.A. – LCMA has been established in 1996 as the integrated manufacturer and distributor of the wide range of semi product in titanium and its alloys.

LCMA is a manufacturer of the wide range of the semiproduct. We start from the very beginning, i.e. from titanium ingots of CP titanium and its various alloys. Then we convert the ingots into the bar, wire, sheet, tube, flanges, valves, forgings and castings. Conversion is done at European producers facilities only.

The final product is delivered to LCMA service center and warehouse in Luxembourg where from it is distributed to the customers in Europe, United States, Asia and Australia. Flexible and effective organization of production process makes LCMA capable to satisfy any customer’s requirements and, which is very important, to do it very shortly. LCMA target is to deliver the high quality product in any volumes and for the best price!

LCMA is approved by TUV /Cert DIN EN ISO 9001:2000; PED 97/23/EC; EN 9100 Aerospace series

Dear clients, please welcome to visit LCMA website www.lcma.lu. If you have any inquiries please contact us E-mail: lcma@pt.lu; lcma@lantech.ru

-------------------------------

Wowtech Titanium is transforming from an exporter to a stocking and processing company for titanium products. Meanwhile, we are aiming at supplying high-end products for aerospace, military and nuclear industries. You can trust on us because:

1. We are the largest stockist for titanium products in China. A 2000 square meters warehouse storing Gr5 titanium sheets and plates in various thickness, Gr2 and Gr5 bars in common sizes worth a total of USD one million.
2. The ERP system allows us to provide real time info to customers
3. Delayed-Shipment-Recovery-Fund (DSRF) has been established and used for those late shipments. (ship materials to customers by air instead of by sea at our cost in order to save the delayed time)
4. 2008 Edition ISO9002 certification by DNV
5. AS9120 (aerospace supplier certification) certification by BV in process

We provide solution for any of your titanium products demand. Please contact us:

2 North Hi-Tech Ave, Hi-Tech Green Industrial Base, Tianjin 300384 China www.wowtech.org
+86 (22) 27945239, 27945157 or +86 (22) 27945251
frank@wowtech.org, alex@wowtech.org, peter@wowtech.org
You can also find our names from:
http://www.alibaba.com
http://www.thomasglobal.com
http://www.stainless-steel-world.net/

-------------------------------

Services:

ONLINE TITANIUM AND SPECIALTY METALS CLEARINGHOUSE – www.directalloys.com

Manufacturers now have access to a dedicated online clearinghouse for their excess prime certified titanium, superalloys, specialty steel and aluminum alloy mill products. Direct Alloys helps mills, forgers, machine shops, fabricators, distributors and end-users sell and locate forging stock, machining bar, wire, plate and sheet inventories. We provide the link between short term material supply and demand, saving purchasers and suppliers precious time, energy and capital resources.

Direct Alloys concentrates on premium materials, and represents the seller in transactions, providing a unique knowledge based service with over 25 years experience in the specialty metals industry. Our online database and advanced sales tools located at www.directalloys.com offer a dynamic value-added service for suppliers and consumers of high performance metals.

Register for our free industry news email updates!
Direct Alloys LLC
901 Broad Street
Utica, NY 13501
Phone: 1-315-883-1991
Supply of Peeling and other Cold Finishing Equipment for Titanium Processing.

Danieli Centro Maskin, the cold finishing division of the multinational DANIELI group, design and manufacture a wide range of equipment that cover the processes of peeling, drawing, cut to length, straightening, chamfering, packaging and all associated equipment.

Enquiries for individual machines and/or complete cold finishing plants are welcome.

For USA enquiries contact Danieli Corporation USA (Bob Smith Tel: (724) 778 5448; r.smith@danielicorp.com). For all other enquiries contact Danieli headquarters in Italy (Kristiaan van Teutem, Tel: +39 04321957295; k.vanteutem@danieli.it)

Material 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, Trans World Alloys Email: sthomas@twalloys.com Tel: (800) 258-8180

Looking for Excess Usable Inventory

North American Alloys is looking to buy excess usable inventory, remnants, scrap or recycle in all titanium alloys. Call us today for a prompt and competitive bid. Contact: Michael Shulimson Telephone: 818-890-2250 or 800-985-2250 Fax: 818-890-7102 Email: m.shulimson@att.net

Steven Meredith Telephone: 509-586-8848 or 800-985-2250 Fax: 509-586-4943 Email: steve@northamericanalloys.com Visit us on the web at: www.northamericanalloys.com
Current Membership Includes the Following Companies

A & S Metal Recycling, Inc
Accushape™ Inc.
ACNIS International
ADG Titanium Fly Rod
ADMA Products, Inc.
Aerodyne Alloys LLC
Aeromet International plc.
Affinity International LLC Ltd.
Al Solutions, Inc.
Alcoa Power and Propulsion
ALD Vacuum Technologies Inc
Allegheny Technologies Incorporated
   ATI Allegheny Ludlum
   ATI Alvac
   ATI Engineered Products
   ATI Wah Chang
AlloyWorks, LLC
American Titanium Works LLC
Ameri-Ti, Inc.
Arnold Magnetic Technologies Rolled Products
Associated Tube Group
Aurox Resources Limited
Avon Metals Ltd.
Baltic Titan Ltd.
Baoji Baoye Titanium-Nickel Industry Co., Ltd.
Baoji First Titanium Industry Co., Ltd.
Baoji Ronghao Ti Co., Ltd
Baoji Titanium Industry Co. Ltd.
Beamalloy Technologies, LLC
Beijing Zhongbei Titanium Industry Co., Ltd
BIBUS METALS AG
Bodycote
Bruker AXS Handheld Inc.
CALIFORNIA TITANIUM, LLC
Carver Machine Works, Inc.
CEFIVAL
Center for Advanced Mineral & Metallurgical Processing
Ceratizit USA
Chaoyang Jinda Titanium Co., Ltd.
Chesapeake Industrial Cleaning Products, Inc.
Consarc Corporation
Corrosion Materials
Cristal USA Inc DBA International Titanium Powder
CSIR Council for Scientific and Industrial Research
Danieli Centro Maskin
Defense Metals Technology Center
DGA/CEP
DHL Drawack Services
Direct Alloys LLC
DKSH Switzerland Ltd.
Donggang City Orient High-New Metal Material co., Ltd.
Dolphin Inc.

Dynamet Incorporated
Dynamet Technology Incorporated
EURO-TITAN Handels AG
Excelco Developments Incorporated
FAE S.A. Fabricación de Aleaciones Especiales S.A.
Form & Technik GmbH
Fort Wayne Metals
FRIGGI SRL
G&S Titanium, Inc.
GfE Metalle & Materialien GmbH
GIE Media Inc.
Global Titanium Products, Inc.
Goodrich Corporation - Landing Gear Division
Grandis Titanium
Hailong (Zhang Jiagang) Industry Co., Ltd
Harvey Titanium Limited
HEMPEL SPECIAL METALS GmbH
High Performance Tube Inc.
Hi Tech Alloys
HORIE Corporation
Hunan Xiangtou Goldsky Titanium Metal Co., Ltd.
Hyundai Titanium Company, Ltd.
Independent Forgings & Alloys Ltd
Industrial Metals International Ltd.
Innov-x Systems
Intermountain Consumer Professional Engineers, Inc.
Jiangsu Hongbao Group Co., Ltd.
Kasto, Inc.
Keywell LLC Vac Air Division
Kocks Pittsburgh Company
Latrobe Specialty Steel Company
Long Island Titanium Corp.
Luxembourg Company of Metals and Alloys S.A.
Makino
Medart, Inc.
METALVALUE Ltd
Mid-West Machine
Monico Alloys Incorporated
Nanjing Baotai Special Materials Co., Ltd
Norsk Titanium AS
North American Alloys
Northern Illinois University
Nu-Tech Precision Metals, Inc.
Oak Ridge National Laboratory
OSAKA Titanium technologies Co., Ltd.
Oxford Instruments America, Inc.
P.J. Greco-Kittanning
Pacer Bioscience Inc.
Pacific Cast Technologies, Inc.
Paramount Business Services Inc.
Parker, Messana & Associates, Inc.

Founded in 1984 the International Titanium Association is a nonprofit networking trade association for the titanium industry. Current membership includes 195 organizations.
Current Membership Includes the Following Companies

Perryman Company
Plymouth Engineered Shapes
Plymouth Tube Company
Precision Titanium Components Inc. (PTC)
President Company, Ltd.
President Titanium Incorporated
Quad Engineering Inc.
Rath Gibson
Reading Alloys Inc. An AMETEK Company
Recycling Coordinators, Inc.
ReMelt Scientific, Inc.
Rotech Systems LLC
RJ Enterprise, Inc.
Robert Zapp Werkstofftechnik GmbH
Rock Island Arsenal
Roll Forming Corporation
Roskill Consulting Group Ltd.
RTI International Metals, Inc.
  RTI Claro
  RTI Energy Systems
  RTI Fabrication
  RTI Niles
  RTI Titanium Company
S. Letvin & Son, Inc.
Saigon Quynhon Mining Corporation
Sandinox Comércio, Importação e Exportação, Ltda
Sandvik Materials Technology
Schaffer Grinding Co., Inc.
SeaCast, Inc.
Service Steel Aerospace
Shanghai Huaxia Industry Co., Ltd.
Sims Metal Management Aerospace
Solar Atmospheres of Western PA
Solar Manufacturing Inc.
Specialty Metals Company
Specialty Metals Processing, Inc.
Spectore Corporation
Sphemet Company, Ltd.
S-Tech Corp.
STRATCOR, Inc.
Strohecker Incorporated
Sumitomo Corporation of America
Sunbeam Specialty Alloys Limited
Supra Alloys Incorporated
T.M.P. Titanium Mill Products Ltd
TechSolve, Inc.
TECT Power
Thermo Scientific Niton Analyzers
ThyssenKrupp Titanium
Tianjin Hengtai Industry And Trade Co., Ltd
Tibrasil Titania Ltda.
TiCan Metals Inc.
TICO Titanium Incorporated
TiFast s.r.l.
TIMET, Titanium Metals Corporation
  LOTERIOS SpA
TIODIZE Co., Inc.
TITAL GmbH
TITANIUM Consulting & Trading S.r.l.
TITANIUM ENGINEERS, INC.
Titanium Fabrication Corporation
Titanium Finishing Company
Titanium Industries Inc.
Titanium International Fabricators (Pty) Limited
Titanium International Group SRL
TLI Group Ltd.
Toho Titanium Co., Ltd.
Tool Peaks Industries Limited
Totall Metal Recycling
Trans World Alloys Company
Tricor Industrial Incorporated
TSI Titanium
TZ Minerals International Pty Ltd
Ulbrich Stainless Steels & Special Metals, Inc.
United Alloys & Metals, Inc.
United Titanium Inc.
Uniti Titanium
VALTIMET
VSMPO-AVISMA
  NF & M International Incorporated
Vulcanium Metals Incorporated
Weber Metals, Inc.
Wellmet International Inc
West Penn Testing Group
Western Smelting & Metals, Inc.
Western Superconducting Technologies Co., Ltd.
Westmoreland Mechanical Testing & Research, Inc.
Wowtech Titanium Co., LTD.
Xiamen Sailing Precision Hardware Manufacture Co., Ltd
X’ian Aerospace New Materials Co., Ltd
X’ian Metals & Minerals IMP/EXP Co., Ltd.
ZAK, Incorporated
ZhangJiagang Huayu Nonferrous Metal Material Co., Ltd
Zirconium Research Corporation

Founded in 1984 the International Titanium Association is a nonprofit networking trade association for the titanium industry. Current membership includes 195 organizations.