

■ SECOND QUARTER 2015 / VOLUME 22

SPRAYTIME

PUBLISHED BY THE INTERNATIONAL THERMAL SPRAY ASSOCIATION, A STANDING COMMITTEE OF THE AMERICAN WELDING SOCIETY

THERMAL SPRAY DEMONSTRATION

NOVEMBER 9–12, 2015

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Published by International Thermal Spray Association A Standing Committee of the American Welding Society

Mission: To be the flagship thermal spray industry newsletter providing company, event, people, product, research, and membership news of interest to industrial leaders, engineers, researchers, scholars, policy-makers, and the public thermal spray community.

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SPRAYTIME® (ISSN 1532-9585) is a quarterly publication of the International Thermal Spray Association. Printed on Recycled Paper. Copyright© 2015 by the International Thermal Spray Association.

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Article submissions (subject to acceptance and edit), advertising insertions, address correspondence, subscription request, back issue copies, and changes of address should be sent to:

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Morphology of typical gas atomized alloys optimized for new applications in laser-based additive manufacturing processes.

I OERLIKON METCO OFFERS MATERIALS NEWLY OPTIMIZED FOR ADDITIVE MANUFACTURING APPLICATIONS

Oerlikon Metco has expanded its materials portfolio with novel, superalloy powders optimized for new applications in laser-based and electron beam additive manufacturing processes that save customers' development time and resources.

In keeping with recent developments in the fabrication of components by additive manufacturing processes such as laser sintering (LS), laser melting (LM), laser metal deposition (LMD) and electron beam melting (EBM), **Oerlikon Metco** has expanded its R&D and materials engineering competency to support customers producing components using those processes. These parts are formed layer-by-layer using metals, alloys and metal matrix composites. The high growth opportunities from aerospace, defense and automotive industries must meet demanding requirements to create increasingly complex components yet exhibit mechanical properties obtained using traditional manufacturing methods.

For key applications, superalloy materials are preferred for their strength and corrosion resistance at high temperatures. **Oerlikon Metco** has been involved in multiple projects to correlate materials, manufacturing processes and metallurgical mechanisms to create tailored materials for additive manufacturing processes. The company

is equipped to custom-design materials and currently markets optimized alloys such as MetcoClad 718, MetcoClad 625, MetcoClad 625F. Aiding these activities is **Oerlikon Metco's** ability to offer clients high-end testing and characterization services that ensure materials meet customers' requirements with top performance results.

"Additive manufacturing has created an increased interest for developing metals and alloys materials," explains Materials Product Line Manager, Thomas Glynn. "The boost in process-specific powder development activities prepared us to meet this market trend through innovations that reinforce our knowledge in the relationship between powder characteristics and resulting component quality." **Oerlikon Metco** has over 50 years of experience in developing powder products for challenging industries with critical material requirements.

Current powder manufacturing activities include initial prototype quantities, pilot production lots, and scale up to produce and deliver many tens of tons of materials per year suitable for laser-based and electron beam additive manufacturing applications.

About Oerlikon Metco

Oerlikon Metco enhances surfaces that bring benefits to customers through a uniquely broad range of surface technologies, equipment, materials, services, specialized machining services and components. The surface technologies such as Thermal Spray and Laser Cladding improve the performance and increase efficiency and reliability. **Oerlikon Metco** serves industries such as aviation, power generation, automotive, oil & gas, industrial and other specialized markets and operates a dynamically growing network of more than 40 sites in EMEA, Americas and Asia Pacific. **Oerlikon Metco**, together with **Oerlikon Balzers**, belongs to the Surface Solutions Segment of the Switzerland-based **Oerlikon Group**.

About the Surface Solutions Segment The Oerlikon Surface Solutions Segment includes the two brands **Oerlikon Balzers** and **Oerlikon Metco**. **Oerlikon Balzers** is one of the world's leading suppliers of surface technologies that significantly improve the performance and durability of precision components as well as tools for the metal and plastics processing industries. Extremely thin and exceptionally hard coatings reduce friction and wear. Under the technology brand ePD, the company develops integrated services and solutions for the metallization of plastic parts with chrome effects. **Oerlikon Metco** enhances surfaces with coating solutions and equipment. Customers benefit from a uniquely broad range of surface technologies, coating solutions, equipment, materials, services, and specialized machining services and components. The innovative solutions improve performance and increase efficiency and reliability. **Oerlikon Metco** serves industries such as power generation, aviation, automotive, and other specialized markets. The Surface Solutions Segment operates a dynamically growing network of currently more than 145 sites with over 140 service and production centers in 35 countries in Europe, the Americas, Asia and Australia, employing more than 6,000 people. The Surface Solutions Segment is part of the Switzerland-based Oerlikon Group. ▲



I NEW IMPERIAL TECHNOLOGY

Imperial Systems, Inc. announces 'Even-Lock Technology'. This breakthrough filter cleaning technology ensures even-gasket compression on all cartridge filters in your CMAXX industrial dust collector. With Even-Lock Technology, you can be assured that there are no hazardous leaks anywhere across the filter gaskets. Other brands of industrial dust collection systems use methods like individual door pans with hand crank knobs that can easily be lost or stripped out. Some other brands are using cam-bars that rotate to clamp the filter in place.

Even-Lock Technology employs individual cams at each filter, from the front to the back, to ensure 100% Even-Locking Technology by compressing the Deltamaxx filter gaskets at a 50:1 compression rate. This design is superior because you do not have to worry about the torsion effect from a rotating bar that is likely to twist in-motion and not deliver the same compression, if any, to the rear filters. Our Even-Lock Technology works just as well with loaded heavy filters. No matter how heavy the filter is from loading, you can be assured if the slide rail arm is locked forward your gaskets are protected by 'Even-Lock Technology'. Even-Lock Technology by **Imperial Systems, Inc.** is standard in every CMAXX Industrial Dust Collector.

About Imperial Systems:

Imperial Systems is an industrial dust collection manufacturer with a complete systems background. From the conceptual state through the installation, **Imperial Systems** is a one source company. ▲

Visit our website, www.isystemsweb.com
or call 724-662-2801 for more information regarding
Even-Lock Technology and the CMAXX Industrial Dust Collector.



Flame Spray Technologies

FLAME SPRAY TECHNOLOGIES ANNOUNCES EGUN™ SYSTEM

After a 3 year development program, **FST** is pleased to announce the eGun™ System together with the eGun™. The eGun™ is a liquid fuel torch that utilizes ethanol as its fuel. There are many advantages to using ethanol as compared to kerosene.

The eGun™ System, with the unique Ultra High Pressure UHP/HVOF eGun™, represents the latest liquid fuel HVOF technology. With this system, we anticipate bringing new and unsurpassed coatings to market. Numerous spray trials have demonstrated that the eGun™ delivers coatings of equal or better quality when compared to conventional HVOF or HP/HVOF torches.

The eGun™ System reduces operating costs while increasing coating quality by:

- Imparting higher particle velocities due to higher combustion chamber pressures of up to 13 bar.
- Using ethanol provides a larger operating window, allowing for the development of unique parameters.

Ethanol allows the eGun™ System to operate in a Neutral, Oxygen Rich or Fuel Rich combustion mode. In effect, the eGun™ gives better control over the balance between the kinetic and thermal energy.

- Using 50% less oxygen than other liquid fueled HVOF systems.
- Requiring 60% less cooling capacity than other liquid fueled HVOF systems.
- Using ethanol fuel is Green Technology providing environmental advantages via lower emissions and is an exceptionally clean process compared to kerosene. ▲



HAPPY 80TH BIRTHDAY

Last year, our colleague and founder of the Stony Brook thermal spray program, Professor Herb Herman celebrated his 80th Birthday. On that occasion CTSR alumni and friends were at hand to honor their beloved Professor and to pay tribute to his contributions not only to the field of thermal spray but also to the development of human resources in the field.

The event was held in conjunction with a consortium meeting and featured lectures from alumni spanning some four decades of graduates. Noteworthy is the continued association of many of the alumni in the field of protective coatings and thermal spray technology. A celebratory dinner event sponsored by the Materials Science Department was held with friends and family following the two day workshop.

The CTSR family wished Herb a very happy birthday and wished him and his wife Barbara the very best in their golden years. ▲



EXLINE VIDEO WINS TELLY AWARDS

Last year, **Exline** worked with **Imagemakers, Inc.** a Wamego, Kansas based marketing agency to produce a corporate video highlighting **Exline's** history in the Gas Compression Industry.

Since the video's release last October, it has been recognized both locally and nationally. Here is a list of the awards the video has been awarded. At the American Advertising Awards, the American Advertising Federation awarded the **Exline** video with a Silver Award in Digital Advertising-video. It was the only film to receive that honor out of 24 entries. The Telly Awards, is an award honoring the finest film and video productions, groundbreaking web commercials, videos, and films, and outstanding local, regional and cable television commercials and programs and segments. A Telly award is given based on the merit of each entry, rather than the entries competing with one another for honors. The **Exline** video was entered into the Online Commercial-Institutional/Corporate Image category and was noted as winning a Bronze award. The **Exline** video was also recognized by the Topeka Chapter of the International Association of Business Communicators, (IABC).

The video was recognized at as an "Award of Merit" winner at the 2015 Bronze Quill awards in held in Topeka, Kansas. Entries in this competition were judged by IABC members in Texas, Oklahoma, Arkansas and Tennessee. **Exline** was entered in the corporate/ industrial video category. The winning team from **Imagemakers, Inc.** consists of Colin MacMillan, Dan Holmgren, Dusty Thomas, and Jaclyn Collins. Colin MacMillan is the Director of Photography for Imagemakers. Exline members have enjoyed working with Colin during his filming trips to Salina.



The Telly Award

For this video, Colin also followed some of **Exline's** field service crews to the Northern Natural Gas facility in Bushton, Kansas and the Tallgrass Energy facility in Tescott, KS. Colin was granted access inside the facility and allowed to film the **Exline** crews working at those stations. "We enjoy being able to provide our clients with material that have been not only able to win awards, but have proven to deliver measurable results". The best part of our job is seeing the positive effects **Imagemakers'** work has on the

people and their clients we serve," said Dan Holmgren, President and Creative Director of **Imagemakers**. If you haven't yet watched the video, please do. It does a great job of telling the **Exline** story.

Watch for a new video coming in October 2015 which will provide an overview of the **Exline** Corporation and highlight **Exline's** Industrial repair capabilities. To view the **Exline** video, visit Youtube and search for "**Exline, Inc Gas Compression Services**". ▲

For more information visit www.exline-inc.com

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Your company should join the **International Thermal Spray Association (ITSA)** now! ITSA is now a Standing Committee of the **American Welding Society** expanding the benefits of company benefits. As a company-member professional industrial association, our mission is dedicated to expanding the use of thermal spray technologies for the benefit of industry and society.

ITSA members invite your company to join us in this endeavor.

See pages 12 – 14

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I METALLISATION LAUNCHES ONLINE SHOP

Metallisation Ltd, a leading manufacturer of thermal spray equipment, has launched its new online shop providing 24 hour access to its vast array of system spares, accessories and consumables.

Metallisation equipment has been designed for a wide range of uses, from engineering and surface modification coating applications using high-tech, fully automated laser cladding, through to corrosion protection of steel fabrications using arc or flame-sprayed coatings. The coating systems are widely used across many sectors, including aerospace, steel manufacture, automotive, oil and gas, construction and many other general manufacturing industries.

The new online shop has been launched as part of **Metallisation's** commitment to its global customer base to deliver excellent customer service every time. Now customers can access their account online 24 hours a day, no matter what time zone they are in. Customers simply log in to their business account to gain access to the stock

list, stock availability, a detailed price list and system manuals. The customer account area also enables customers to manage their accounts, view their order history and track current quotes and invoices.

The online shop, which is accessed via the **Metallisation** website, has been designed to be compatible with all devices. The site has quick access menus, which are sub divided to enable simple and efficient navigation. To assist users in the identification and selection of the correct part, detailed explosion diagrams have been used to show them in situ in common system structures. Good quality pictures of each item will reduce the chance of customers ordering the wrong part.

A 'quick add' feature allows a simple, swift addition of any required part to the user's basket if they know the part number. A safe secure check out allows customers to pay via their account or through a secure credit card transaction. Once an order has been placed full shipping costs and details are also provided, which enables customers to follow their order and know exactly when it will be delivered.

Stuart Milton, Sales Director, says: "The aim of the online shop is to make life easier

for our direct customers, resellers and our mutual end users. We are totally committed to delivering excellent service and work tirelessly on our customer experience. We have distributors and users in over 30 countries and need to make sure they have access to system parts and consumables around the clock. The new site is safe, secure, simple and easy to use and we are delighted to make it available to potential new distributors, resellers and customers in regions where we are not currently represented."

The **Metallisation** team is committed to providing its customers with the high level of aftercare service it prides itself on. As well as the new online shop, **Metallisation** is still contactable by telephone or email for any detailed technical questions, equipment queries or application advice. ▲

Metallisation
Thermal spray equipment and consumables

For more information, please contact Stuart Milton, Sales Director on +44 (0) 1384 252 464 or visit www.metallisation.com

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CTS OPENS TECHNOLOGY CENTER IN CINCINNATI, OH

CTS is committed to innovation through technology. As thermal spray processes continue to evolve with rapidly changing technology, the CTS Technology Center leverages CTS's unique blend of implementation intelligence, technology expertise and entrepreneurial drive to build collaborative opportunities with its customers. The Technology Center staff and leadership team is driven by technology. This team is made up of talented individuals, pulling together innovators and leaders with the vision of advancing thermal spray coatings technology through collaboration. The team comes from various backgrounds, all with the skills and expertise needed to produce actionable results.

Located in Cincinnati, OH, this home for the new Technology Center provides an exceptional environment for innovation and growth. A development lab housed here is

the heart of the center, where innovations and collaborations are explored and cultivated. With the space and resources to evaluate and pursue opportunities, the Technology Center is uniquely positioned to develop and streamline cutting-edge advancements in coating processes in all aspects of the business allowing CTS to remain at the top of the thermal spray industry.

The Technology Center identifies, analyzes and develops new solutions to address environmental and performance challenges and create the next generation of thermal spray products. The Technology Center assesses new and existing technology investment opportunities to pursue a fresh vision for coatings innovation.

- Plasma and HVOF Thermal Spray Development
- Metallographic Evaluation and Image Analysis
- Furnace Cycle Testing
- White Light Profilometry Testing
- Failure Analysis

The center strives to make strategic investments in technology that will rectify time-to-market dilemmas in a controlled R & D environment, while providing thermal spray process control innovations.

About Cincinnati Thermal Spray, Inc.

Cincinnati Thermal Spray, Inc. (CTS) provides high technology coatings to improve the performance of products throughout a variety of industries. We provide solutions in the form of thermal spray coating, dry film lubricants, porcelain enamels, anti-corrosion paints, and protective sealers, along with turnkey service to machine and coat a final product. CTS is a service based company with more than 30 years of industry knowledge and experience. ▲



For more information, visit www.cts-inc.net

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POLYMET CORPORATION WINS PRESTIGIOUS INNOVATION & TECHNOLOGY AWARD

Polymet Corporation is a world class manufacturer of wire used for hardfacing, welding, and thermal spraying. But they ask you don't simply view them as a manufacturer. **Polymet** is a powerhouse of innovation. Since its inception, the company has been dedicated to growing an organization whose foundations are built upon groundbreaking, innovative developments. They have time and time again proven that they are well deserving of the reputation they have earned - Pioneers. **Polymet's** technical expertise and unparalleled development capabilities have led to a unique product position in the markets they serve; markets such as aerospace, oil & gas, and power generation.

It is with pride they share that **Polymet** Corporation has won Cincinnati Business Courier's prestigious Innovation & Technology Award. Specifically, Polymet was recognized for Outstanding Advanced Engineering.

"It is especially meaningful to receive this award this year. We've dedicated a significant amount of time, effort, and resources into advancing our research and development capabilities and it has most definitely paid off". Says **Polymet** President, Bill Mosier. "It is exciting and encouraging for the team to see that their efforts are being recognized on a larger scale".

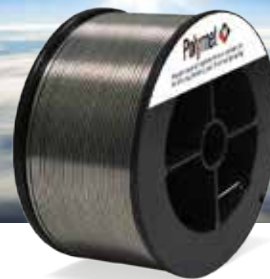
Polymet is particularly excited about launching and growing their new Vecalloy Product Line. These are all one-of-a-kind patented products that have been meticulously engineered to solve specific wear problems in specific industries. They are confident that these, along with their extremely unique product development processes and capabilities played a huge factor in their exciting new achievement. ▲

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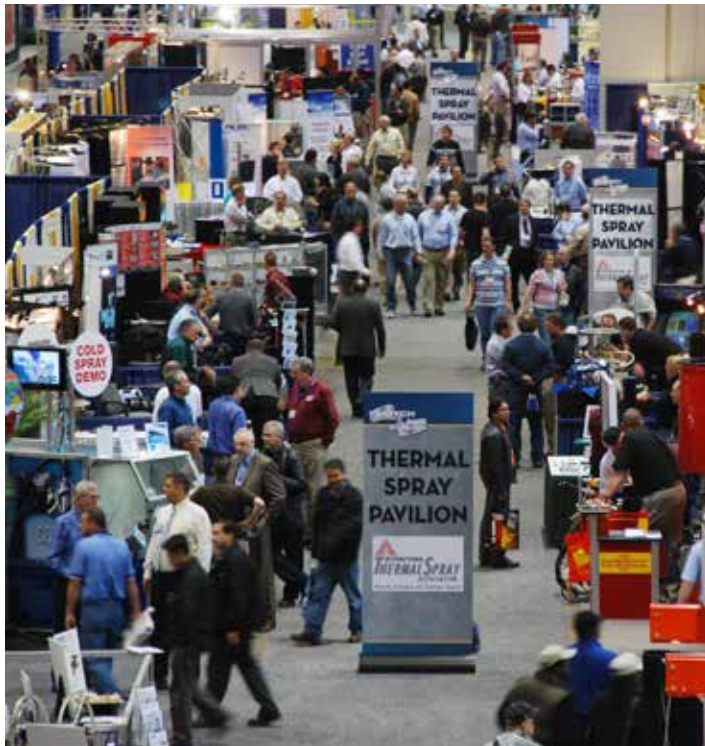
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Simulation of Motion, Heating, and Breakup of
Molten Metal Droplets in the Plasma Jet at Plasma-Arc
Spraying

**M.Yu. Kharlamov, I.V. Krivtsun, V.N. Korzhyk,
Y.V. Ryabovolyk, and O.I. Demyanov**

The mathematical model for the for the process of plasma-arc wire spraying is proposed, which describes behavior of molten metal droplets in the plasma jet, allowing for the processes of their deformation and gas-dynamic breakup. Numerical analysis of the processes of motion, heating, and breakup of molten metal droplets, detached from the sprayed wire at plasma-arc spraying of coatings, was performed. It is shown that during molten droplets movement in the plasma jet their multiple breakup takes place, leading to formation of sprayed particles with dimensions much smaller than dimensions of initial droplets, detached from the sprayed wire tip.

Read the entire article in the April 2015 Issue.
Visit www.asminternational.org/tss



JOIN ITSA AT FABTECH 2015

FABTECH brings a wealth of innovation and technology solutions to Chicago, Illinois November 9-12, 2015. The four day show will cover 550,000+ net square feet of floor space at McCormick Place. More than 40,000 attendees and over 1,500 exhibiting companies are expected to gather once again celebrating metal manufacturing at its best.

The event also provides learning opportunities beyond the show floor with over 100 educational sessions which include a half-day "What Is Thermal Spray?" symposium, a Thermal Spray Pavilion and a LIVE Thermal Spray demonstration throughout the exhibition.

Visit the 2014 "Live Demo" movie at www.thermalspray.org

Join the International Thermal Spray Association with your Company booth at the **FABTECH** Thermal Spray Pavilion this year in Chicago.

To reserve your booth space, contact

Joe Krall,
800.443.9353 x297 or
email jkrall@aws.org

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FABTECH Expo November 9-12, 2015 Chicago, IL / North Hall **N24084**

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ITSA members invite your company to join us in this endeavor.

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HemiPleat Synthetic is available in a standard version or a nano fiber media version that uses **Camfil APC's** proprietary "eXtreme" media technology. The nano fiber layer acts like a pre-filter that enhances surface loading of dust, keeping most particles from embedding in the base media. This enhances the filter's efficiency as well as its cleaning ability for longer service life. The standard media is rated at MERV 11, and the nano fiber media is rated at a MERV 15 filtration efficiency based on the ASHRAE 52.2 test standard.

HemiPleat® Synthetic filters are available for **Farr Gold Series®** dust collectors or for retrofit on most major brands of competitive cartridge dust collectors. ▲

For further information, please visit
www.camfilapc.com/hemipeat/synthetic

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ITSA Mission Statement

The International Thermal Spray Association, a Standing Committee of the American Welding Society, is a professional industrial organization dedicated to expanding the use of thermal spray technologies for the benefit of industry and society.

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MEMBERSHIP



Chairman Mosier

The **International Thermal Spray Association** is closely interwoven with the history of thermal spray development in this hemisphere. Founded in 1948, and once known as Metallizing Service Contractors, the association has been closely tied to most major advances in thermal spray technology, equipment and materials, industry events, education, standards and market development.

A company-member association, **ITSA** invites all interested companies to talk

with our officers, and company representatives to better understand member benefits. A complete list of ITSA member companies and their representatives can be found at their website

www.thermalspray.org

ITSA MISSION STATEMENT

The International Thermal Spray Association, a Standing Committee of The American Welding Society, is a professional industrial organization dedicated to expanding the use of thermal spray technologies for the benefit of industry and society.

OFFICERS

Chairman: **Bill Mosier**, *Polymet Corporation*
 Vice-Chairman: **Jim Ryan**, *Carpenter Powder Products*
 Corporate Secretary: **Kathy Dusa**

EXECUTIVE COMMITTEE (above officers plus the following)

Richard Grey, *Retired-Genie Products, Inc.*
Larry Grimenstein, *Nation Coating Systems*
Dan Hayden, *Hayden Corporation*
David Wright, *Accuwright Industries, Inc.*

ITSA SCHOLARSHIP OPPORTUNITIES

The International Thermal Spray Association offers annual Graduate Scholarships. Since 1992, the ITSA scholarship program has contributed to the growth of the thermal spray community, especially in the development of new technologists and engineers. ITSA is very proud of this education partnership and encourages all eligible participants to apply. Please visit www.thermalspray.org for criteria information and a printable application form.

ITSA THERMAL SPRAY HISTORICAL COLLECTION

In April 2000, the International Thermal Spray Association announced the establishment of a Thermal Spray Historical Collection which is now on display at the State University of New York at Stony Brook in the Thermal Spray Research Center, USA.

Growing in size and value, there are now over 30 different spray guns and miscellaneous equipment, a variety of spray gun manuals, hundreds of photographs, and several historic thermal spray publications and reference books.

Future plans include a virtual tour of the collection on the ITSA website for the entire global community to visit. This is a worldwide industry collection and we welcome donations from the entire thermal spray community.

ITSA SPRAYTIME NEWSLETTER

Since 1992, the International Thermal Spray Association has been publishing the **SPRAYTIME** newsletter for the thermal spray industry. The mission is to be the flagship thermal spray industry newsletter providing company, event, people, product, research, and membership news of interest to the thermal spray community.

BECOME A MEMBER OF THE INTERNATIONAL THERMAL SPRAY ASSOCIATION

Your company should join the **International Thermal Spray Association (ITSA)** now! As a company-member, professional industrial association, our mission is dedicated to expanding the use of thermal spray technologies for the benefit of industry and society. **ITSA** members invite and welcome your company to join us in this endeavor.

NEW – All **ITSA** company members are now also Supporting Members of the **American Welding Society**.

Whether you are a job shop, a captive in-house facility, an equipment or materials supplier, an educational campus, or a surface engineering consultant, **ITSA** membership will be of value to your organization.

Our annual membership meetings provide a mutually rewarding experience for all attendees - both business and personal. Our one-day technical program and half-day business meeting balanced by social activities provide numerous opportunities to discuss the needs and practices of thermal spray equipment and processes with one another.

As an **ITSA** member, your company has excellent marketing exposure by being listed centerfold in the **SPRAYTIME** newsletter.

ITSA member companies are also highlighted in the **ITSA** booth at several trade shows throughout the year.

For more information, contact Kathy Dusa 440.357.5400 or visit the membership section at www.thermalspray.org.



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5 STEP TO BUILDING A CHAMPIONSHIP SALES TEAM

Joe runs a mid-sized manufacturing company with nineteen salespeople. The sales team is a mix of long-time veterans and newcomers. Sales have been flat for the past eighteen months, even though the economy has improved. Joe is constantly frustrated with his ineffective attempts to get his team to prospect more. He tries to show them how to sell more effectively, but they continue to fall back into the same old habits.

Joe knows that his team can and should be selling at least an additional \$5 million in revenues. He feels stuck.

Does this sound familiar? Joe's is one of the most common situations I encounter as a sales strategist. Companies often underperform because they have not systematically built a sales team. Follow these five steps to develop a championship sales team of your own:

1. RE-EVALUATE THE STRATEGY:

There are three key ways to increase sales: find more customers, make larger sales and

sell more frequently to existing customers. Do you have a strategy that addresses these three areas? More important, are you focused on selling to your ideal customer?

Companies are often trying to sell to everyone, but all of the serious rewards come when

they focus on selling to their sweet spot. In Joe's case, his salespeople are calling on any and every prospect they come across, indiscriminately. He needs to clarify for his team exactly where they should be focusing their time and efforts in order to increase all areas of sales growth.

2. ASSESS THE EXISTING TEAM:

It's critical that you know your sales team, inside and out. How many A-players, B-players and C-players do you have? How does your existing team feel about your organization? How should you manage each salesperson according to his strengths and weaknesses? For example, Joe knows that he has only three A-players, eight B-players, and the rest are C-players or worse. He is spending most of his time trying to improve the latter with little to show for the effort. Rather, he must more deeply understand the strengths and weaknesses of each team member and be willing to replace some of his underperformers with new recruits. Both online data-driven assessments and on-site evaluations help to drive this activity.

3. DEVELOP A HIRING PROCESS:

Mid-sized companies rarely have a formal hiring process. Most of these companies are waiting until they desperately need a new salesperson. Then they will cull through some resumes and set up a few face-to-face interviews, only to hire the most acceptable of the lot. But hiring is the most critical part of developing a championship sales team! It's time to create a formal process that involves assessments, phone screens, consistent interview questions and role-plays. Right now, Joe has no hiring process and hires people based on his gut in interviews. As a result, he has struggled with a number of miss-hires over the years. He needs to formalize this process and remove his gut from the equation as much as possible.

4. TRAIN CONSISTENTLY: A suggestion here and there does not count as consistent training. In order to develop a championship sales team, it's critical that you invest a lot into training that team. This means conducting regular trainings to reinforce the most critical selling concepts. Every salesperson needs to be on the same page in selling technique. In Joe's organization, each salesperson sells in his or her own way. They are all over the map in terms of effectiveness. Joe must either develop or bring in an outside selling system for everyone in the organization to follow.

5. CREATE ACCOUNTABILITY: Most mid-sized organizations are only tracking their salespeople's sales numbers. But what about their day-to-day prospecting activities? How many calls are made, referrals asked for and meetings set up? By holding your salespeople accountable to their daily prospecting activities, you can track what their pipeline will be in the future, which is the most important indicator of future sales. Up until now, Joe has only reviewed sales numbers at the end of each month in order to hold his salespeople accountable. This leads to his sales team feeling frustrated and without a clear plan to find success. By laying out what he expects his salespeople to do each day, Joe can more effectively manage his team.

Following these five simple steps can take mid-sized organizations from haphazardly managing their people to developing a championship sales team. ▲



ABOUT THE AUTHOR: Marc Wayshak is the bestselling author of two books on sales and leadership, *Game Plan Selling* and *Breaking All Barriers*, as well as a regular contributor for *Fast Company*, *Entrepreneur Magazine* and the *Huffington Post Business* section. As a sales strategist, Marc created the *Game Plan Selling System* to revolutionize the way salespeople, entrepreneurs and companies approach selling. Marc's sales strategy is based upon his experiences as an All-American athlete, Ivy League graduate, startup entrepreneur and years of research, training and selling. He holds an MBA from the University of Oxford and a BA from Harvard University. Get his free eBook on 25 Tips to Crush Your Sales Goal at GamePlanSelling.com.

You can call him at (617) 203-2171 or email him at Info@MarcWayshak.com. (Twitter: @MarcWayshak)

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IN MEMORIAM



We are all saddened by the passing of

Billy Randall Martin
on May, 2015

■ “It is with deep sorrow and a heavy heart that I inform you that our beloved friend and partner Billy Randall Martin passed away in May, 2015 after being diagnosed with brain cancer. Our prayers and thoughts are with his wife Emily, his children Brian and Erin and his entire family whom he dearly loved. Randall was a great friend and leader and mentor to others. As a partner in **American Surface Modifications LLC**, Randall was instrumental in the formation of the company and made an indelible and invaluable contribution to our company, our people, our customers and our industry over his entire 35 year career.



Prior to **American Surface Modifications LLC**, Randall held several positions in Sermatech including General Manager and Sales Manager and played a key role in transferring thermal spray technology to various Sermatech locations. To all who had the honor of knowing him and working with him, he will be sorely missed. His family would like to extend thanks to everyone who sent lovely flowers, cards and emails and visited Randall in the hospital and nursing home and attended his mass service, gave memorial or performed other acts of kindness.” ▲

Dr. Srinivasan “Shanks” Shankar, Chairman,
American Surface Modifications LLC
Email shankar52@aol.com

DORFMAN RECEIVES ASM TSS PRESIDENT’S AWARD



■ Mitchell R. Dorfman, FASM, Metco Fellow at **Oerlikon Metco**, is a 2015 recipient of the TSS President’s Award for Meritorious Service.

He obtained a MS in Materials Science and a BS in Mechanical Engineering from SUNY at Stony Brook, NY in 1978 and 1979, respectively. During his 35-year career at Sulzer Metco (now Oerlikon Metco), Mitch has held many positions in Materials Engineering, Materials Manufacturing and Technical Sales Support. He was instrumental in developing and commercializing the HOSP (plasma densification) manufacturing process at Sulzer Metco. In addition, he has developed many materials for the aerospace/industrial gas turbine and general industry market segments. Ceramics for thermal barrier coating applications, ceramic and metal composites for compressor and turbine abradable applications, and carbides for wear applications are just a few areas of his research and development activities in thermal spray technology.

Throughout his career, Mitch has authored over 60 technical papers and holds 20 patents in materials related to thermal spray technology. In 2003, he received the “Distinguished Alumni Award” from the Center of Thermal Spray Research at SUNY Stony Brook. In 2012 he gave the keynote talk at ITSC 2012 in Houston entitled “Upcoming Global Opportunities and

Challenges in the Thermal Spray Industry” and co-authored a written commentary published in the JTST entitled “Challenges and Strategies for Growth of Thermal Spray Markets: The Six-Pillar Plan based on this keynote address.”

Mitch has been an ASM member since 1988. He has held various positions with ASM/TSS over the years, including ASM Thermal Society President and Immediate Past President, Technical Chair for ITSC 2009, Topical Chairman for several industry conferences, Chairman of ASM/TSS Information and Development Committee and ongoing reviewer of technical papers for the Journal of Thermal Spray Technology. ▲

ADRIANO MACHADO APPOINTED REGION MANAGER FOR SOUTH AMERICA



■ Adriano Machado has been appointed President of **Höganäs Brasil Ltda** and Head of Region South America. He assumes the position on 1 April, 2015.

Adriano Machado has been with **Höganäs** Brazil for five years working with sales and supply chain. For the past three years he has been Commercial Director. He has a degree in Foreign Trade, an MBA from FGV in Brazil and an Executive Certificate in Innovation and Strategy from MIT Sloan.

Adriano is a valued member of the management team for Region South America, says Melker Jernberg, **Höganäs** President and CEO. With his experience he is well suited to take over the positive development started and managed by Claudinei Reche. Adriano assuming the position makes for a seamless shift in the region management.

Claudinei Reche leaves **Höganäs** for a position at another international company. **Höganäs** 24 March 2015

Höganäs

About Höganäs

Höganäs is the world’s leading manufacturer of iron and metal powders. Together with our customers we develop tomorrow’s automotive components, products for brazing, electric motors and systems for sustainable energy production. During 2013 the turnover was SEK 6 338 million. **Höganäs**, founded in 1797, is owned by Lindéngruppen and FAM. ▲

Thermal Spray Jobs listed at
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H.C. STARCK EXPANDS EXECUTIVE BOARD



■ **H.C. Starck** GmbH is expanding its Executive Board to include the new position of Chief Technology Officer (CTO): Effective February 1, 2015, Dr. Michael Reiß has taken on this position, which was created in response to the rising importance of technological aspects to **H.C. Starck's** successful further development particularly in view of the global strategic growth projects of the company. In his new position, Dr. Reiß will be part of the **H.C. Starck** Group Executive Board together with President and CEO Dr. Andreas Meier, CFO Dr. Matthias Schmitz, and Executive Board members Dr. Dmitry Shashkov and Edmar Allitsch.

"**H.C. Starck** is a company driven by innovation and technology, so adding the position of Chief Technology Officer to the Executive Board is a logical step in strengthening the **H.C. Starck** Group in the best possible way through optimized technological and long-term alignment of the production sites," said Dr. Engelbert Heimes, Chairman of the Supervisory Board. "We are pleased to have been able to bring Dr. Reiß on board for this challenging role," he adds.

"Our company's unique technological expertise, combined with highly efficient production processes, is an important success factor in **H.C. Starck's** future development. We are pleased that the Supervisory Board has appointed Dr. Reiß, a highly experienced colleague with long-standing experience at **H.C. Starck** and proven technical expertise," said **H.C. Starck** CEO Dr. Meier. "In recent years, Dr. Reiß has already played a major role in the worldwide expansion of our powder business and successfully headed various site optimization projects," he continued.

After studying process engineering, a three-year stint as a researcher, and then earning his doctorate at Clausthal University of Technology (Germany), Dr. Michael Reiß started his career at **H.C. Starck** GmbH in 2000 as the Head of Process Optimization and Process Development in the Hart Metal Industry Business Unit. After that, he held various positions with local or global responsibility, acting as Operations Manager, Production Manager, Site Manager, and Technical Director within the **H.C. Starck** Group.



About H.C. Starck

The **H.C. Starck** Group is a leading

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global supplier of technology metals and advanced ceramics, and serves growing industries such as the electronics, chemicals, automotive, medical technology, aerospace, energy technology, and environmental technology industries, as well as engineering companies and tool manufacturers, from its own manufacturing facilities located in Europe, America, and Asia. In 2013, the company had about 2,800 employees in the United States, Canada, Great Britain, Germany, China, Thailand, Vietnam and Japan. ▲

Additional news about the company is available at www.hcstarck.com/press.

RISING MATERIALS SCIENTIST WINS METCO SPONSORED YOUNG PROFESSIONALS AWARD AT ITSC 2015

■ The Young Professionals Award (YPA) is sponsored by **Oerlikon Metco** and supported and organized by the **German Welding Society (DVS)** and **ASM International**. It has been a successful event since it was introduced in 2011 by Professor Kirsten Bobzin of the University of Aachen. The YPA aims to recognize bright young individuals who show promise in contributing to the advancements in surface engineering. The winner receives high recognition from industry leaders and is awarded a cash prize plus an all-expense-paid visit to an **Oerlikon Metco** facility.

Reza Rokni, a recent Ph.D. graduate in Materials Science and Engineering from the South Dakota School of Mines & Technology, received the Young Professional Award this year at the

International Thermal Spray Conference (ITSC) 2015 for his outstanding presentation titled "The Effects of Post Cold Spray Heat Treatments on Microstructure & Mechanical Properties of 7075 Al Depositions".

"The Young Professionals Session is one of the most valuable events that we conduct at the **ITSC**," says Richard Schmid, CTO at **Oerlikon Metco**. "It creates a high level of excitement within the student bodies. These students are the future of our industry; therefore, this is a worthy investment in our future." This year's award was presented by the session organizer, Professor Sanjay Sampath, Director of the Center for Thermal Spray Research at Stony Brook State University of New York, and Markus Heusser, Head of Business Unit Materials and Technology at **Oerlikon Metco**.

As part of the award prize, Mr. Rokni received an all-expense paid trip to New York where he had the opportunity to visit **Oerlikon Metco's** Westbury facility and meeting with several management team members, including **Oerlikon Metco** (US) President Friedrich Herold and Materials R&D Manager Jing Liu, Coating Solutions Center Manager Chris Dambra. After touring the R&D, Engineering, Manufacturing Departments and experiencing firsthand the processes and operations of a production plant, he stated: "It was a great pleasure meeting everyone. I was pretty amazed by the friendly and multicultural environment and by the interesting projects **Oerlikon Metco** manages."

Prior to achieving his Ph.D. degree, Mr. Rokni had published thirteen technical papers whereby he demonstrated exceptional qualities desirable in the next generation of innovative professionals. He



Coating Solutions Center Manager Chris Dambra greets Mr. Reza Rokni and explains the coatings application support and development processes.

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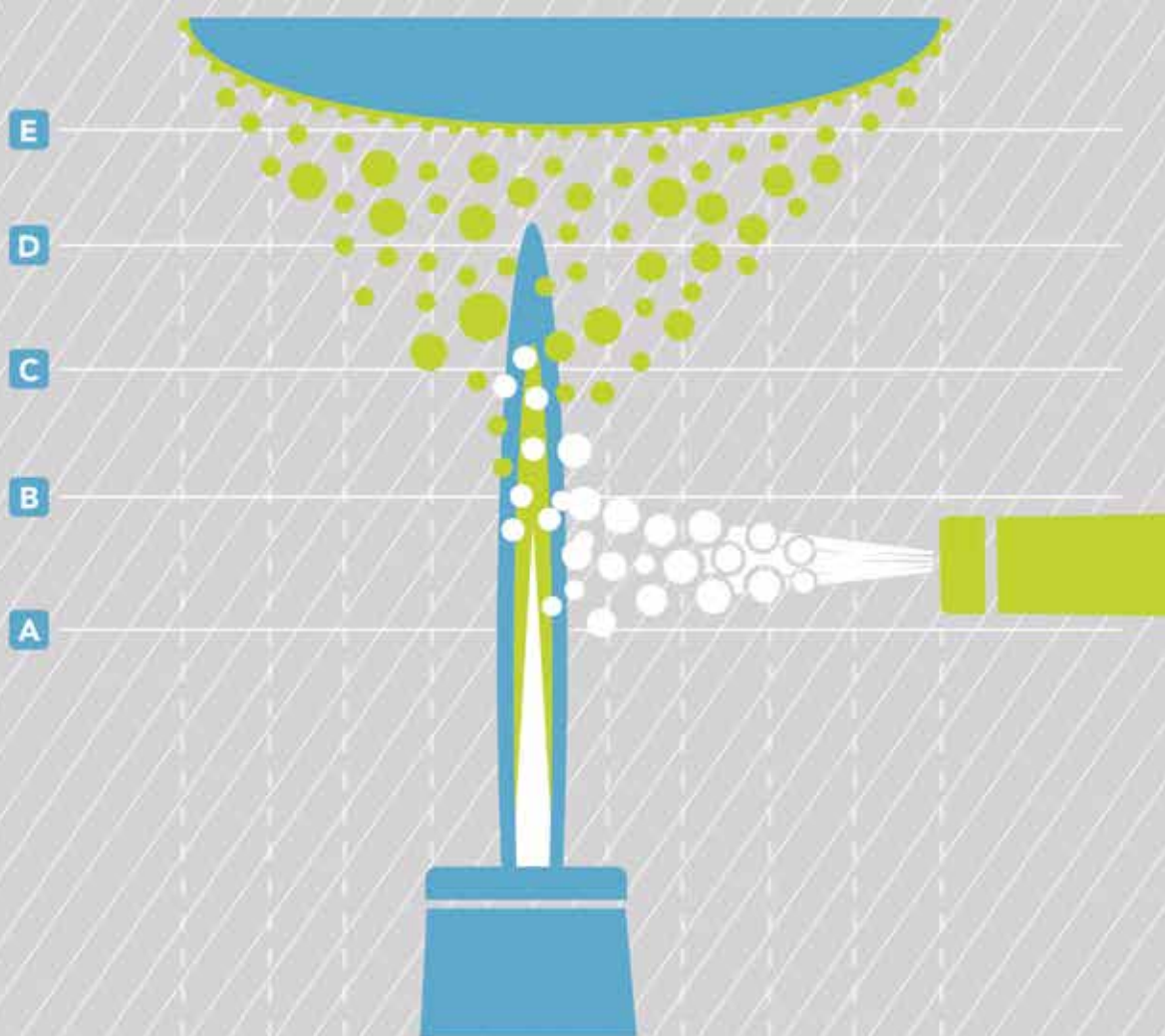
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is currently conducting post-doctoral research focused on surface modification processes, such as thermal and cold spray. "I am glad that I can stay in this area and can keep contributing to the knowledge and science of it," he concludes.



About Oerlikon Metco

Oerlikon Metco enhances surfaces that bring benefits to customers through a uniquely broad range of surface technologies, equipment, materials, services, specialized machining services and components. The surface technologies such as Thermal Spray and Laser Cladding improve the performance and increase efficiency and reliability. **Oerlikon Metco** serves industries such as aviation, power generation, automotive, oil & gas, industrial and other specialized markets and operates a dynamically growing network of more than 40 sites in EMEA, Americas and Asia Pacific. **Oerlikon Metco**, together with **Oerlikon Balzers**, belongs to the Surface Solutions Segment of the Switzerland-based **Oerlikon Group** (SIX: OERL). ▲

For further information,
please visit www.oerlikon.com/metco.

POLYMET ANNOUNCES ALEX ZAPPASODI CLARK AS MARKETING MANAGER



■ **Polymet** Corporation is pleased to announce Alex Zappasodi Clark as their new Marketing Manager.

In this new role Alex will oversee all aspects of **Polymet's** marketing efforts with a direct focus on strategic market growth through a comprehensive inbound marketing strategy.

Alex joined the **Polymet** team in January of 2014 as a sales and marketing specialist with her duties split between marketing, customer service and sales support. With a background in digital marketing strategy and a track record of successfully implementing results driven projects, **Polymet** is confident that managing their marketing efforts is where Alex will provide the most value.

Polymet Corporation is a world class manufacturer of high performance welding, hardfacing, and thermal spray wire. The company's foundation was built on the manufacturing of wire for demanding aerospace applications; these services led the way for **Polymet** to develop numerous innovative solutions for challenging welding and hardfacing applications across a wide array of industries. ▲

For more information about **Polymet**,
visit www.polymet.us or contact them via phone: 844.411.4694
email: sales@polymet.us.

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SAFE GAS CYLINDER HANDLING & STORAGE



According to OSHA Standard 29 CFR 1910.101(a):

"Inspection of compressed gas cylinders. Each employer shall determine that compressed gas cylinders under his control are

in a safe condition to the extent that this can be determined by visual inspection. Visual and other inspections shall be conducted as prescribed in the Hazardous Materials Regulations of the Department of Transportation (49 CFR parts 171-179 and 14 CFR part 103). Where those regulations are not applicable, visual and other inspections shall be conducted in accordance with Compressed Gas Association Pamphlets C-6-1968 and C-8-1962, which is incorporated by reference as specified in Sec. 1910.6."

Visually inspect the gas cylinder before placing it into service. Look for dents, crevice corrosion, bulges, arc or torch burns that may weaken the cylinder wall; or, cuts,

gouges, digs, corrosion or pitting that may decrease wall thickness.

Also, check for neck and valve defects. Never handle cylinders roughly, or roll or drag a cylinder. Misuse can weaken a cylinder and make it unfit for future use. Strap large cylinders to a wheeled cart to ensure stability when moving, and only move one cylinder at a time.

Keep the cylinder valve closed when it is no longer necessary to be open. This is important for both full and empty cylinders. Keeping the valve closed on empty cylinders prevents corrosion and contamination from air and moisture getting into the cylinder after it is empty.

Mark cylinders as being empty and segregate empty cylinders from full cylinders. Inspect all cylinders for damage before storing. Make sure that all cylinders are stored on a dry surface.

Inside of buildings, store cylinders in a well-protected, well-ventilated, dry location, at least 20 feet (6.1 m) from highly combustible materials such as oil or excelsior.

Store all gas cylinders in definitively assigned places away from elevators, stairs, or gangways. Locate storage places where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons.

Keep oxygen cylinders segregated from fuel cylinders by 20 feet or by fire resistant wall. Do not store cylinders in unventilated enclosures. The in-plant handling, storage, and utilization of all compressed gases in cylinders, portable tanks, rail tank cars, or motor vehicle cargo tanks shall be in accordance with Compressed Gas Association Pamphlet P-1- 1965.

Charlie Howes is a semi-retired safety consultant, licensed private investigator, and technical writer with over 20 years of experience in the welding & thermal spray industries. ▲

Contact Charlie Howes at
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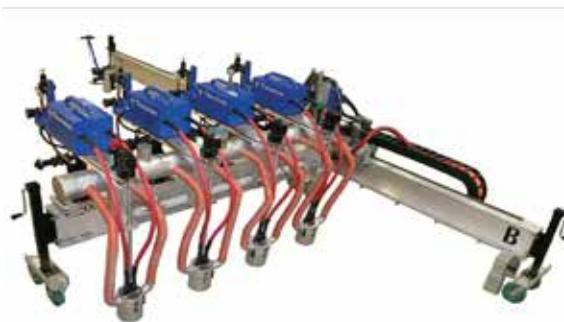
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