

SPRAYTIME

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



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Where is your article? We encourage you to send articles, news, announcements and information to spraytime@thermalspray.org

**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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A subscription to SPRAYTIME® is free for individuals interested in the thermal spray and coatings industry. Visit www.spraytime.org to subscribe.



SST™ INSTALLS FIRST MRO COLD SPRAY SYSTEM IN LATIN AMERICA

CenterLine (Windsor) Limited's Supersonic Spray Technologies Division (SST™), recently commissioned its first SST Cold Spray installation in Latin America at **Venequip SA**.

VENEQUIP SA is a private Venezuelan company with eleven divisions across Venezuela dedicated to sales, service, maintenance and support of heavy equipment for the construction, petrochemical, mining, and energy segments. Venequip's Barquisimeto facility selected a portable SST Series P system for the repair and restoration of large cast iron diesel engine blocks.

As part of the implementation of this system, **VENEQUIP** staff received extensive training over a four day period which covered cold spray fundamentals, safety procedures, calibration, equipment operation (manual and robotic), equipment maintenance, and powder storage & handling.



Venequip invited some customers to witness the initial repair trials. All staffing that underwent training were presented with certificates of completion. ▲



CenterLine (Windsor) Ltd is a recognized industry leader in the design, manufacture and supply of products and services that satisfy welding, metal forming and cold spray applications within the automotive, mass transit, aerospace and defense industries. With nearly 60 years in business, **CenterLine** is continuing to develop advanced technologies and processes that assist its customers in maintaining their competitive advantage.



For more information please visit **CenterLine's** website at www.cntrline.com as well as the SST's website at www.supersonicspray.com.



CTS'S TECHNOLOGY CENTER NOW IN FULL SWING

In late 2014, **CTS** opened the **CTS** Technology Center located just north of Cincinnati in Blue Ash, Ohio. It is now in full swing and **CTS** has a loaded schedule of development projects as they work closely with many industry stakeholders. Kirk Fick is the Senior Development Engineer responsible for operating the facility, but the Center is also available to all **CTS** engineers across their Service Centers.

Among the vast portfolio of tools available to Kirk and his team, the Technology Center retains most commercially available thermal spray guns for plasma, HVOF, wire, and combustion spray. Kirk's team also has access to high enthalpy plasma systems including **Progressive's** 100HE and **Oerlikon's** iPro guns. **CTS's** Technology Center is equipped with onsite testing capabilities including metallographic preparation and evaluation, image analysis, 3D surface profilometry, and furnace cycle testing just to name a few. In addition, **CTS** works closely with university partners such as Stony Brook University and the University of Cincinnati to extend their analytical capabilities.

CTS's president Shane Elbel further describes the intent of **CTS's** Technology Center. "The return on such an investment is a challenge to gauge when your core business resides within the job shop arena. However, we felt strongly that we needed to make a fundamental shift in how we provide solutions to our customers if we were going to maintain a positive rate of growth over the next decade. These days, OEM's vertically integrate new thermal spray technologies and protect what they deem is their own intellectual property. Powder suppliers are no longer the drivers of thermal spray processes as they once were. Over the years, **CTS** has been the beneficiary of many smart and collaborative partners

within our industry to help drive and pioneer thermal spray into new markets. These days it seems everyone is a competitor, and the industry push into new markets is very guarded compared to past decades. We are responsible for our own destiny. At **CTS** we recognized that we were not effectively tapping into the intellectual creativity of our technical team members. We are determined to break away from historic job shop models related to engineering development, and capitalize on the energy and passion of the talented people working at **CTS**. We wanted to provide them both the canvas and the opportunity to innovate."

The Technology Center has already completed many successful projects this past year teaming up with partners such as powder vendors, customers, OEM's, and universities. **CTS** realizes that there are new industries all over the world dealing with corrosion and wear problems. Most of the time, these entities are not even aware they have a problem until a solution is presented in the form of a thermal spray technology. The Technology Center is currently refining historic thermal spray processes while introducing the company as a solution to many new industrial markets. It is an exciting time to be part of the Team at **CTS**.

The Technology Center has been built upon these principles:

1. Improve our customer focus by reducing time to market of new products
2. Support Lean initiatives through the refinement of legacy thermal spray parameters
3. Advance industry process control techniques including flame monitoring and sensors
4. Explore and test the next generation of thermal spray equipment and materials

Some of the current initiatives underway include characterizing advanced TBC materials for industrial gas turbine engines, process optimization for ultra dense ceramic coatings, and the evaluation of HVOF hardface coatings. ▲



For more information related to **CTS's** Technology Center, services, or capabilities, please contact Kirk Fick at kfick@cts-inc.net.

Or visit **CTS** at their website, www.cts-inc.net.



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SCHOLARSHIP OPPORTUNITIES

International Thermal Spray Association

Up to three (3) Graduate scholarships worth \$2,000.00 each to be awarded each calendar year.

Since 1991, the ITSA Scholarship Program has contributed to the growth of the Thermal Spray Community, especially the development of new technologists and engineers. The International Thermal Spray Association is very proud of this education partnership and encourages all eligible participants to apply.

NEW APPLICATION DATES: Scholarship applications are now accepted annually April 15 through July 15 ONLY for the Graduate scholarships.

Please visit the Scholarship area at WWW.THERMALSPRAY.ORG

GREENBELTING ANNOUNCES CHINESE PARTNERSHIP AT ITSC 2016

An Exciting Partnership! Executives from **PTFE Group** of Companies were excited to announce at **ITSC 2016** their new partnership with a Chinese distributor, Beijing **Yitong Haiying Trading Company Limited**. **Yitong** is a highly respected company who provides machines, materials, support, and services to manufacturers in China. **Yitong** will be one of **PTFE Group** of Companies agents in China.



(L-R) Tim Connelly (**PTFE Group**), Dr. Huang (**Yitong**), Jim McFarlane (**CEO, PTFE Group**), Ms. Lou Yanqin (**Yitong**).



Global Adhesive Product Manager Tim Connelly shared information about **PTFE Group** thermal spray masking solutions to many guests and attendees at the **PTFE Group** booth during the 3 day exhibition.



Attendees all received a **PTFE Group** backpack which proved to be a well-used convenience item as attendees toured the many booths and collected information. **PTFE Group** offered the backpacks as a co-sponsor of **ITSC 2016**. It was great to see everyone using them! ▲

green belting industries

For more information, visit www.ptfegroup.com

**Where is your article?
We encourage you to
send articles, news,
announcements and
information to
spraytime@thermalspray.org**

METALLISATION LAUNCHES SPRAYSEAL RANGE



Metallisation Ltd, a leading manufacturer of thermal spray equipment, has launched Sprayseal a new range of high performance capillary action penetrating sealers.

The Sprayseal range is a clear, transparent sealer that has been specially formulated to give full permeation into all porosity voids and cracks in thermal sprayed coatings. The polymeric material is resistant to physical, thermal and chemical stress. The sealers are ideal for engineering and anti-corrosion thermal sprayed coatings and some are safe to use in food and drinking water processes.

Typically engineering coatings and high performance corrosion coatings are sealed with deep penetrating sealers, which are usually difficult to apply or cure and have a short shelf life. By comparison, **Metallisation's** Sprayseal range of sealers is generally easy to apply, cure and has a very useful long shelf life.

There are four products available in the Sprayseal range: Sprayseal-F, Sprayseal-C, Sprayseal-HT and Sprayseal-E each offers the following properties:

- **Sprayseal-F** - the most commonly applied, general use sealer, easily applied by spray, brush or roller. This sealer is suitable for fine cavities of pore sizes from 0 to 0.0039in (0-0.1mm) and is touch dry in six minutes.
- **Sprayseal-C** - a similar formulation to Sprayseal-F and is suitable for larger pores from 0.0039in to 0.020in (0.1-0.5mm). This sealer is ideal for coatings with an open structure and is touch dry in eight minutes.
- **Sprayseal-HT** – offers temperature resistance up to 500°. This sealer does not air dry but requires curing within one hour of application and is suitable for pore sizes 0 to 0.0039in (0-0.1mm)
- **Sprayseal-E** – is the perfect solution for maximum corrosion and solvent resistance, suitable for pore sizes 0 to 0.020in (0-0.5mm). This flexible sealer can accommodate movement and expansion, is touch dry in 20 hours and machinable in 36 hours.

The Sprayseal range is easy to use and can be applied by brushing, rolling, spraying or dipping and all have a minimum of twelve months shelf life if stored correctly. Sprayseal-HT can be stored, in a cool dry place, for up to five years.

Stuart Milton, Sales Director, says: "The new Sprayseal sealers are an excellent addition to the range of **Metallisation** consumables. We can now offer customers an effective, efficient alternative sealer that's easy to use, even simpler to apply and has a decent shelf life. Sprayseal-F is a particularly useful, all round sealer product for our engineering customers, due to its flexibility and ability to accommodate movement and expansion. At **Metallisation** we pride ourselves on looking for, and developing, alternative solutions for our customers." ▲

Metallisation
Thermal spray equipment and consumables

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



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 Ryan

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: **Jim Ryan**, *Carpenter Powder Products*
 Vice-Chairman: **David Lee**, *Kennametal Stellite Company*
 Corporate Secretary: **Kathy Dusa**

EXECUTIVE COMMITTEE (above officers plus the following)

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Bill Mosier, *Polymet Corporation*
Peter Ruggiero, *Curtiss-Wright Surface Technologies*
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.

To view the additional AWS benefits, please visit www.aws.org/membership/supporting

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.

WHY WE DO IT

CLEAN AIR MATTERS

We believe breathing clean air is a human right that employees, friends and family members in the workplace all deserve.

Contact Camfil APC to learn more.

camfilapc.com/cleanairmatters



Farr Gold Series®
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Looks Like a Safe Because It's
**BUILT LIKE
A SAFE**



Dust, Mist and Fume Collectors



WHAT TWITTER FOUNDER, JACK DORSEY, TEACHES US ABOUT MARKETING

As a teenager, Jack Dorsey developed dispatch routing software for taxi cabs. During this time, he was intrigued by the way taxis could briefly update others on their whereabouts. Soon, he began to contemplate developing an online program that would allow everyday people to send short messages to others in their online community. Just a few years later, he and co-founders Biz Stone and Noah Glass started Twitter.

Twitter has become an integral part of our lives, and the mindset that led to its creation is just as critical to those looking to market their organizations. Dorsey speaks passionately these days about creating a “user narrative” when developing a product that tells a story of the user’s day-to-day life. This allows his companies, like Twitter and Square Reader, to create products that are built with the sole intention of filling a particular need.

This same mindset can also be applied to marketing. All too often, businesses market themselves without the prospect in mind. But successful marketers of the future will begin to align all marketing efforts with a prospect narrative. **Creating a prospect narrative is an easy and powerful way to**

put yourself into your prospect’s shoes — and ultimately increase the effectiveness of your marketing.

Here are five questions to consider when developing a prospect narrative for your company’s next marketing campaign:

WHAT IS YOUR PROSPECT DOING DURING HIS DAY?

Most organizations create their marketing materials without considering what a prospect will be doing when he receives a marketing message. Prospects are busier than they have ever been in history. In fact, they are spending over a quarter of their day just responding to emails. In order for your campaign to break through the clutter, you must consider how your ideal prospect is spending his time.

WHAT IS KEEPING HIM UP AT NIGHT?

Usually, a company centers the majority of its marketing efforts around the company itself or the features and benefits of a specific product. However, prospects don’t care about us, our company or our offerings. All they care about are the issues they are dealing with right then and there. What are the challenges that your ideal prospect takes home with him each night? If you want your

marketing to elicit a particular behavior, then spend some time matching your message to the challenges your prospect cares most about.

WHAT WILL CATCH HIS ATTENTION?

Most organizations are so focused on broadcasting how great they are that they don’t think about what will most effectively catch the attention of the intended prospect. Most commercials, for example, are generic and unmemorable, so in order for yours to stand out, you need to develop a message that is so appealing or jarring to your prospect that he has no choice but to react to it.

WHAT ACTION WILL HE MOST LIKELY TAKE?

So many marketing campaigns are solely focused on increasing awareness of an organization, rather than encouraging a prospect to take some action. This is tantamount to burning cash in a barrel. Think about what action your prospect would most realistically take after absorbing your message. Would he most likely go to a website, send a text, pick up the phone, send something through the mail or find you on Twitter? Once you know which medium a prospect is most likely to use, then you can develop a call-to-action that aligns with it.

HOW WILL YOU KEEP HIM ENGAGED?

Rarely do companies develop marketing campaigns that create long-term engagement. However, those that

do receive dividends over and over again, all from that initial investment. Therefore, the question great marketers want to answer is, given the prospect's narrative, what are realistic ways to engage him in the long run? This will be the difference between developing a one-time customer and a long-term fan.

By formulating answers to these five questions, you begin to create a story of what your prospect is doing and what he is thinking about. After the prospect narrative is created, your marketing team should channel Dorsey by fitting campaigns precisely into that narrative. ▲



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.
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JIM RYAN NEW CHAIRMAN OF INTERNATIONAL THERMAL SPRAY ASSOCIATION



■ Jim Ryan has been appointed Chairman of the **International Thermal Spray Association** after serving two years as the Vice-Chairman. Jim Ryan, a business and sales professional with over 26 years in the surface technology industry, has worked for such major coatings companies as **Praxair Surface Technology Specialty Powders**, **AIMMRO** and **H. C. Starck**. He founded **Advanced Material Services** in September 2009 with a focus on materials for surface technology, brazing, laser, and value added products specializing in the aerospace, oil and gas, steel, power and electronics markets. In March 2014, Jim joined **Atlas Machine and Supply** as a Strategic Account Representative assisting the development of Atlas thermal spray coatings business. Jim joined **Carpenter Powder Products** in October, 2015 as Specialist and Market Development continuing his many years in the powder market. Jim had served as the **ITSA** Membership Chairman for over ten years and is now a member of the Education Committee. Jim has a BS/BA in Marketing from Xavier University. ▲

For more information, email jryan@cartech.com



Bill Mosier (left) receiving Past President plaque from incoming President Jim Ryan.

BILL MOSIER HONORED FOR HIS CHAIRMANSHIP

■ **Bill Mosier**, *President of Polymet Corporation*, Cincinnati, OH, was honored with a plaque for his three-year position as Chairman for the **International Thermal Spray Association** at their April Annual Membership Meeting in Nashville, TN.

Actively involved with **ITSA** since 2000, Bill served as Treasurer for nine years before being appointed Vice Chair and Chairman. Now Past-Chairman and an Officer, Bill continues his leadership activities with the **ITSA** Membership Committee. Born and raised in the small town of Coal City, Illinois, Bill went to the University of Illinois, graduating with a BS in Metallurgical Engineering. To help put himself through school, he worked in the weld lab fatigue testing spot welds, and also for the Army Corp of Engineers - their Civil Engineering Research Laboratory (CERL) - supporting their welding program. Upon graduation, Bill worked at the **American Welding Institute** in Knoxville, Tennessee for 5 years as a metallurgical/welding engineer. He then worked for Stoodly as a Product Development Engineer in Bowling Green, Ohio where he met and married his wife Kay. They moved to Cincinnati where Bill joined Polymet as the technology and quality manager. From there, he progressed to business unit manager, production manager, general manager and his current position as president. In addition to Bill's **ITSA** affiliation, he has been a member of ASM International and the **American Welding Society (AWS)** since his college years. He is a member of the **AWS** A5 and C2 committees as well as Chair of the C2J Committee. ▲

For more information, email bmosier@polymet.us



DAVID LEE APPOINTED ITSA VICE-CHAIRMAN

■ David A. Lee, Staff Engineer at **Kennametal Stellite**, Goshen, IN has been appointed Vice-Chairman of the International Thermal Spray Association.

David has been actively involved with the **International Thermal Spray Association** for about 30 years. His Bachelor Degree is in chemical engineering from Tri-State (now Trine) University and he has continued with some post graduate studies. He has worked on development and commercialization of thermal spray coatings and applications in plasma, HVOF, combustion wire and twin wire arc spray, Rockide and combustion spray (spray and fuse for example) from 1978-1984 at **Boyd Machine and Repair**, Kimmel, IN.

David joined "Stellite" in 1985 primarily to support and promote growth of Hypervelocity Thermal Spraying, now known as HVOF. He has more than 31 years hands on experience with Jet Kote™, developing powders, equipment, process improvements, and applications for this first commercially available HVOF process.

David has supported and been instrumental in talent development at Stoney Brook University over 30 yrs. working with under and post graduates in Thermal Spray education and research and has participated in CTSR (Center for Thermal Spray Research) Consortium for over 15 years.

David has installed and trained numerous spray operators and engineers around the globe in the art of producing and evaluating HVOF Thermal Spray Coatings from basic to advanced coating requirements for aerospace.

David holds two patents for applications/materials for HVOF thermal spray coatings and has presented papers at various International (ASM/DVS) and **AWS** Thermal Spray Conferences.

David has been active with the **AWS** C2 Committee on Thermal Spray Standards for over 30 years, having been Chairperson 2009-2014. ▲

For more information, contact David at
David.A.Lee@kennametal.com
 574-534-8631

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IN MEMORIAM



■ **M. Brad Beardsley**, an **ASM International Thermal Spray Society Hall of Fame** inductee, passed away March 19, 2016. He earned his B.S. and M.S. degrees in Metallurgical Engineering and a Ph.D. in Materials Science all from Iowa State University.

Beardsley was a true champion for thermal spray processes throughout **Caterpillar** during his 35 year career there. He pioneered new applications that significantly expanded the use of thermal spraying techniques for remanufacturing processes. Moreover, Beardsley fought and won the struggle to replace Cr plating for mining truck hydraulic rods with HVOF to yield a sustainable, higher-performing process that continues today. He was awarded 11 US patents, published 10 external papers and secured over \$25M in federal funding to develop new thermal spray techniques and materials. In addition, Beardsley made a significant impact on the thermal spray community through his mentoring of younger engineers. Over 40 engineers at **Caterpillar** moved on to work with thermal spray processes within and outside of **Caterpillar**.

Beardsley was inducted into the **Thermal Spray Society Hall of Fame in 2013** to acknowledge "His enduring commitment and success in establishing worldwide utilization of thermal spray processes and materials for sustainable manufacturing processes ranging from remanufacturing to Cr-plate replacement."

He retired from **Caterpillar Inc.** in 2013 and moved with his wife, Janette to Canton, IA. ▲



■ **Eastwind Diamond Abrasives (EDA)** announces that they have recently promoted Gary Merrill to Production Manager of the Industrial Line. Merrill, who has been with the company for almost three years now, has shown an outstanding desire to work and keep up with the demand. He will be responsible for all aspects of the Industrial Line.

This line of Industrial belts is widely used in the thermal spray industry. The industrial line ranges in mesh sizes from 50 mesh thru .5 micron --- widths from .5"-inch thru 4" inch wide and lengths from 30"-inch thru 160"inch.

EDA manufactures these resin bond belts so they are able to customize specialty diamond to the client's specific needs easier than most other manufactures. They are able to ship anywhere around the world. ▲

For more information about **Eastwind Diamond Abrasives**, please call (802)674-5427 or visit us online at www.eastwinddiamondabrasives.com



Ray and Marianne Sinatra on top of Mount Ogden Snow Basin, Utah where Ray was a speaker at the **International Thermal Spray Association Technical Program** June 2013.

■ **Dear ITSA Members and All Practitioners of Thermal Spray,**

After 46 years of continuous employment in the thermal spray profession I will retire from Rolls Royce Aerospace on April 29th.

Given the opportunity to have worked for a major thermal spray supplier, a U.S. airline and a global engine manufacturer, the journey and life experiences gained has been richly rewarding. My personal Contributions to the "art and science" of thermal spray have allowed me to meet so many talented people in our industry.

I will always be thankful for those who helped me perform at a level never expected.

Best wishes,

Ray Sinatra



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HIRING THERMAL SPRAY TECHNICIANS *By Scott McLaughlin*

I often get asked, "Do you know any good thermal spray technicians?" Thermal spray job shops are always looking to either upgrade their talent or expand their workforce to manage sales growth. I discussed this with Kathy Dusa, Managing Editor of Spraytime and we agreed an article would be a good way to share some ideas on how to recruit quality spray technicians.

In a past role as national sales manager for a global coatings service company, I had to do a fair amount of recruiting, interviewing and hiring. Finding A players was always the goal. Steve Jobs stressed to Google cofounder Larry Page in a conversation as retold in Steve Jobs by Walter Isaacson, "We talked a lot about focus. And choosing people...what you have to do to keep the company from getting flabby or being larded with B players". Also, quoting Steve Jobs, "I've learned over the years that, when you have really good people, you don't have to baby them. By expecting them to do great things, you can get them to do great things.

The original Mac team taught me that A-plus players like to work together, and they don't like it if you (management) tolerate B-grade work." Knowing where to look for A players was something that comes with experience.

I recommend a multi-pronged approach to reach, recruit and hire thermal spray technicians. Social media, networking, local trade schools, colleges, high schools, search firms and trade magazines are all excellent sources for good employees. The best thermal spray technicians I have known were proficient in basic math, are able to read engineering drawings, problem solve, were self-starters, and were inherently creative. Understanding how heat affects metals and an ability to learn material science are also key attributes. People with welding backgrounds have made excellent thermal spray technicians. Another goal should be to draw qualified, quality, A players to your company. If a candidate comes to you, they have some baseline interest in your company. Using the mass media job sites, Monster,

Career Builder, Indeed.com, Simplyhired.com etc will generate a lot of resumes for you to review. But from my experience, it is simply trying to find the needle in a haystack. While casting a wide net is important it is also important to be as efficient as possible. Having to pour through hundreds of resumes is not an efficient means to finding an ideal, A player candidate.

GET THE WORD OUT

First action to do after writing a clear job description would be to post the opening on your company website. Create a page titled Careers or Employment or Job Openings if you do not already have one on your company website. These will draw candidates in your area to your website. Make sure to use common words that candidates will be typing into search engines. Thermal spray jobs, flame spray operator, spray tech, HVOF technician, plasma spray technician. Be sure to use several position titles when referring to the opening you are trying to fill. That increases the chances candidates searching for a new thermal spray job will find you.

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(Cont' from page 16)

LINKEDIN

Check out LinkedIn Discussion Groups like Thermal spray coating and Thermal Spray Forum. Post your opening there. Start a conversation. Post on your LinkedIn profile that your company is hiring. You can search LinkedIn by position type, experience and current and past employers. You can also post your opening on LinkedIn which can be easily found by anyone searching Thermal Spray. As of April 2016 there were 64 jobs posted for thermal spray in the LinkedIn Jobs Section.

Susan Healthfield, Human Resources Expert says, "Develop a complete, keyword-rich profile for your company on LinkedIn. Prospective employees, who are looking for employers, search LinkedIn by keywords, too. They also look at company profiles to make up lists of companies for whom they'd like to work." You can also search for potential candidates by searching on Current or Past Employers. LinkedIn's InMail service can be used to contact candidates directly and discretely. Ms. Healthfield also suggests that responding to questions in discussion groups will increase your visibility on LinkedIn so prospects looking for a new career will more easily find you.

FACEBOOK AND TWITTER

Many companies maintain Facebook pages in order to share company news, promote products, launch new products and recruit new employees. Again, the goal is to draw qualified candidates to your company. Tweet out your job opening and include several thermal spray industry handles such as @McLaughlinCoat or @Polymet. If you can get them to retweet your tweet, you have instantly and exponentially broadened your reach to potential candidates. Encourage current employees to use Facebook to send out your weblink with job openings to expand your reach. What better endorsement could your company have than a current employee? Offer incentives for employees who bring new employees to your company. Combine the incentive with recognition and you have a powerful recruiting tool. There are apps which can add a Jobs tab to your Facebook page. See www.Linkup.com.

HIRING MILLENNIALS

Your target demographic for hiring new, entry level employees will be the Millennial generation. While Millennials have a lot in common to previous generations, they also have some unique characteristics, concerns and preferences. Knowing their

preferences will enable an employer to attract the best Millennial candidates. Julie Schrader, Career Services Associate Director at Butler University in Indianapolis says the job market is good currently and improving for job seekers. Which means finding good candidates will be more difficult for hiring managers. Ms. Schrader quoted Lindsey Pollack on Three Things Every Employer Needs to Know about Millennials ;

1. Millennials see themselves as Individuals
2. Millennials require recognition
3. Millennials can't live without technology

Ms. Schrader also said millennials prefer employers who demonstrate a responsibility to the community, exhibit social responsibility and are inclusive to all employees. They place high value on having their ideas listened to. She said developing a relationship with local schools is a good way to find workers also.

LOCAL COLLEGES, HIGH SCHOOLS, VOTECH SCHOOLS, TRADE SCHOOLS AND COMMUNITY COLLEGES

Local education providers offer a wealth of hiring candidates. It is highly suggested hiring managers and HR department heads develop a relationship with the schools in their area before the need to expand your workforce arises. Get to know the Career Development Director, Placement Director and alumni support contacts at local colleges, training schools and vocational schools. Also get acquainted with the guidance counselors at your local high school. While a large majority of graduating high school seniors are choosing to continue their education at four year colleges and universities there is a measurable percentage of seniors for whom college is not the best choice. Frequently, they are the hands on, work with their hands people who make excellent thermal spray operators. Finding these individuals on your own is difficult at best. Guidance counselors at high schools know who these students are and eager to help match them up with local employers.

PROFESSIONAL RECRUITERS

Also known as head hunters, professional search firms can be extremely helpful in a tight labor market. They can search the thermal spray industry for qualified candidates in ways a hiring manager can not. The common misconception of recruiters is that they are too expensive. While there is cost to use a recruiter, many work on a contingency whereas they are paid only if the client company hires a recruit brought to them by the recruiter. Based on the job market

recruiters may also negotiate terms which could be more attractive. A good recruiter can also reduce the lead time finding a candidate by culling underqualified applicants and help manage the selection process to increase the odds of finding a better candidate (A player). Besides we all know just how expensive a bad hire can be to your business. Joe Smith of Smith & Syberg Executive Search located in Columbus, IN says recruiters are valuable when there is a "shortage of talent" in the position being sought such as with thermal spray this is due to the relatively small number of people in any given region with thermal spray experience. Recruiters can help with targeted searches for thermal spray operators in similar industries which have like skill sets. Welders and machinists make excellent thermal spray operators. Recruiters can also help find skilled, experienced thermal spray in other regions of the country, places with which the company hiring manager would not be familiar. Mr. Smith also says recruiters can help find qualified candidates for openings who are not currently looking for work but may consider switching should the right opportunity come along.

GOING OLD SCHOOL

Every spray shop in North America has a few copies of Spraytime laying around and available for all to read. A 2" by 2" ad in Spraytime is fairly inexpensive and is a great way to directly connect with thermal spray technician contacts. Besides, copies of Spraytime get passed around and stay in lunch rooms and lobbies for months giving your ad a long shelf life and a constant stream of new prospective recruits. If you do choose to put an ad in Spraytime, experts suggest using a minimum of words, being clear and to the point. Do not put a paragraph into an want ad. Minda Zetlin, coauthor of The Geek Gap writes on INC.'s website, "Write an ad, not a job description". As briefly as possible mention why your company is a great place to work and include your company's mission. List a phone number, company website and an email address. Since the audience is relatively small and targeted there is no need to artificially screen or filter inquiries.

BOTTOMLINE

The best path for hiring new thermal spray operators is to look for the A players and to expand your search with a targeted approach.

For more information, contact author Scott McLaughlin via email scott@mclaughlinthermalspray.com



2016

JULY 2016

17-23 | Hainan Island, China
ICCE-24 ANNUAL INTERNATIONAL CONFERENCE ON COMPOSITES
www.icce-nano.org

19-21 | Johannesburg, South Africa
POWER GEN AFRICA
www.powergenafrika.com

SEPTEMBER 2016

12-15 | Houston, TX USA
TURBOMACHINERY & PUMP SYMPOSIUM
pumpturbo.tamu.edu/event-info/schedule

12-17 | Chicago, IL USA
SURFACE TECHNOLOGY NORTH AMERICA
 Nisrine Jorio, njorio@hfusa.com

OCTOBER 2016

6-8 | HCMC, Vietnam
METALEX
www.metalexvietnam.com

23-27 | Salt Lake City, UT USA
MS&T16 CONFERENCE & EXPOSITION
www.asminternational.org

25-29 | Hanover, Germany
INT'L SHEET METAL WORKING TECHNOLOGY
www.euroblech.com

NOVEMBER 2016

16-18 | Las Vegas, NV USA
FABTECH – THERMAL SPRAY LIVE DEMONSTRATION
www.aws.org

DECEMBER 2016

13-15 | Orlando, FL USA
POWER GEN
www.power-gen.com

2017

FEBRUARY 2017

21-22 | Houston, TX USA
LAM 2017 LASER ADDITIVE MANUFACTURING WORKSHOP
www.lia.org

MARCH 2017

7-8 | Charleston, SC USA
COATINGS & ADVANCED INNOVATIONS FOR INDUSTRIAL GAS TURBINES
itsa@thermalspray.org

26-30 | New Orleans, LA USA
CORROSION 2017
www.nacecorrosion.org

APRIL 2017

24-28 | San Diego, CA USA
ICMCTF-17 – INTL CONFERENCE ON METALLURGICAL COATINGS & THIN FILMS
www.icmctf.org

Apr 29- May 4 | Providence, RI USA
2017 60TH SVC ANNUAL TECHNICAL CONFERENCE
www.svc.org

MAY 2017

1-4 | Houston, TX USA
OTC 2017 OFFSHORE TECHNOLOGY CONFERENCE
www.otcnet.org

JUNE 2017

7-9 | Düsseldorf, Germany
ITSC 2017 INT'L THERMAL SPRAY CONFERENCE AND EXPOSITION
www.dvs-ev/itsc2017

27-30 | Las Vegas, NV USA
POWDERMET 2017

SEPTEMBER 2017

3-7 | Czech Republic
EUROCORR 2017 20TH INTL CORROSION CONGRESS
www.eurocorr2017.org

OCTOBER 2017

TBD | Albuquerque, NM USA
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