

FNA  **2016** *BE THERE*

Miss FNA 2016... And You Miss Your Competitive Advantage

Get Face-to-Face with Industry Leaders and Buyers!

Destination: Nashville, TN
October 3-5, 2016



THE HEAT TREATING INDUSTRY'S PREMIER TRADE SHOW

STAY CURRENT WITH CHANGING TRENDS & EMERGING TECHNOLOGIES

- ✓ Emerging Technologies
- ✓ 2 Networking Events
- ✓ Over 35 Technical Sessions
- ✓ Trends in Heat Treating Systems
- ✓ Over 160 Top Suppliers to Heat Treating Industry
- ✓ Network With Attendees From 40 States and 8 Countries
- ✓ Maximizing Productivity & Safety





Dear MTI Members,

It's undeniable: the heat treatment industry is changing. Key elements driving this change include emerging technologies, demographic shifts and consumer buying habits. So how do we adapt to these changes and continue to foster growth?

As we all try to answer this question, it's important to come together as an industry and share our insights, expertise and experiences. MTI's Fall Meeting in conjunction with Furnaces North America (FNA) 2016 is one such opportunity.

On behalf of the Metal Treating Institute (MTI) Board of Trustees, and as the 2016 President of the MTI, I would like to invite you to attend this educational event and take away a new perspective on the changes – and opportunities – facing the heat treatment industry.

MTI, in partnership with *Industrial Heating*, is excited to host FNA 2016, which will take place in Nashville, Tennessee from October 3-5. FNA is considered the industry's largest heat treating conference and exposition, and it provides furnace manufacturers, customers and potential customers an invaluable opportunity to gather together to learn about the latest trends in cutting-edge equipment and technology.

This year, FNA 2016 will feature an opening keynote presentation by former NBA basketball player, Walter Bond, on the *Keys to Peak Performance*. You will also be able to network with more than 160 top suppliers and engage in your choice of 35 technical sessions that cover a range of topics – from the latest technical information on instrumentation and automation to new technology for enhancing energy efficiencies.

Additional key features of FNA 2016 include the ability to:

- Learn about new processes that minimize labor and increase output
- Discover emerging technologies for furnaces and other heating treating equipment
- Implement solutions for resolving everyday maintenance and technical challenges
- Connect with heat treaters from more than 20 countries as they share their new ideas for the industry

As we navigate the changes facing the heat treatment industry, I hope you join us at FNA 2016 to share ideas, discuss the future and learn from the best minds in the industry.

To register for FNA 2016, or to learn more about the event, visit our show website: www.furnacesnorthamerica.com.

I look forward to seeing you in Nashville.



Patrick McKenna
2016 MTI President
Ipsen USA



FURNACES NORTH AMERICA 2016 SCHEDULE

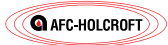
Oct. 3-5, 2016 • Nashville, Tennessee

All Events Hosted as Follows:
NCC: Nashville Convention Center - 601 Commerce St. - Nashville, TN
REN: Renaissance Hotel Nashville - 611 Commerce St. - Nashville, TN

MONDAY, OCTOBER 3

| | |
|------------------------------|--|
| 7:00 a.m. - 6:00 p.m. | Registration and Badge Pick-Up (NCC) FNA Registration and badge pick-up is located in the Renaissance Nashville Hotel & Convention Center. Once you enter the Convention Center, follow the Registration signs. |
| 7:00 a.m. - 6:00 p.m. | Exhibitor Move-in (NCC) |
| 6:00 p.m. - 8:00 p.m. | FNA 2016 Kickoff Welcome Reception with Heavy Hors d'oeuvres (REN) The opening night will be your opportunity to network with the top suppliers exhibiting at FNA 2016 along with some of the most successful heat treaters in the world. At the conclusion of the reception, you will have time to venture out and enjoy the Nashville nightlife and take in some of the local flavor. (Open Only to Paid Conference Attendees and MTI Members) <i>Sponsored by AFC-Holcroft</i> |

Opening Night Reception
Sponsored by



TUESDAY, OCTOBER 4

| | |
|-------------------------------|--|
| 7:00 a.m. - 5:00 p.m. | Registration and Badge Pick-Up (NCC) |
| 8:00 a.m. - 9:00 a.m. | Walter Bond Opening Keynote on Keys to Peak Performance (NCC) |
| 9:15 a.m. - 11:15 a.m. | Technical Sessions (NCC) |
| 11:15 a.m. - 5:30 p.m. | FNA Business Expo (NCC) FNA 2016 is a complete sellout with over 150 top suppliers in every aspect of equipment, furnaces, parts, accessories, and services you can think of in heat treating. You will want to visit every booth and learn the latest innovation and technology. |
| 4:00 p.m. - 5:30 p.m. | Trade Show Floor Reception With Heavy Hors d'oeuvres (NCC) During the last hour of the FNA Expo, you will have the opportunity to enjoy beverages and hors d'oeuvres with your suppliers and other heat treaters. <i>Sponsored by Surface Combustion</i> |
| After the show | Tuesday Evening - Enjoy All That Nashville Has To Offer Tuesday night is all about connecting with your suppliers or customers. Nashville is one of the top entertainment cities in the U.S. with a very diverse array of music and restaurant options. Take advantage of this night to build the relationships you need to secure your business for the future. |

Trade Show Floor Reception
Sponsored by



WEDNESDAY, OCTOBER 5

| | |
|-------------------------------|---|
| 7:00 a.m. - 7:45 a.m. | MTI Annual Business Meeting (MTI Members Only) (NCC) |
| 7:00 a.m. - 1:30 p.m. | Registration and Badge Pick-Up (NCC) |
| 8:00 a.m. - 10:45 a.m. | Technical Sessions (NCC) <i>Sponsored by J.L. Becker</i> |
| 10:45 a.m. - 2:30 p.m. | FNA Business Expo (NCC) |
| 6:00 p.m. - 11:00 p.m. | MTI Final Night Awards Dinner YES Graduation Dinner (REN) (MTI Members Only) |

Thanks to the Sponsors Who Help
Make FNA 2016 Possible

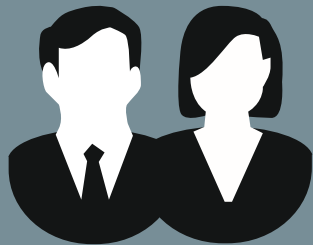


FNA 2016 Technical Sessions

>TIMES

>EDUCATIONAL
TRACKS

>PRESENTERS



Who Should Attend

- ✓ Heat Treat Company Owners
- ✓ Heat Treat Department Managers
- ✓ Heat Treat Division Directors
- ✓ Heat Treat Facility Managers
- ✓ Heat Treat Production Managers
- ✓ Heat Treat Technical Directors
- ✓ Heat Treat Systems Superintendents
- ✓ Heat Treat Metallurgical Engineers
- ✓ Heat Treat Operations Coordinators
- ✓ Heat Treat Maintenance Managers
- ✓ Heat Treat Quality Control Managers

TUESDAY, OCTOBER 4

| | | |
|--------------------|-----------------------|--|
| 9:15 - 9:45 a.m. | Equipment-Maintenance | PdMetrics™ Case Studies: Implementing Predictive Maintenance in the Thermal Processing Industry; Jim Grann, Ipsen |
| 10:00 - 10:30 a.m. | Equipment-Maintenance | Efficient Gas Heating of Industrial Furnaces; Martin Schoenfelder, WS Thermal Process Technology |
| 10:45 - 11:15 a.m. | Equipment-Maintenance | A Case Study: Effective Furnace Atmosphere Circulation with New Furnace Technologies; Akin Malas, Linde Gas |
| 9:15 - 9:45 a.m. | Induction | Induction and Furnace Tempering of Martensitic Steels; Richard Sisson, Center for Heat Treating Excellence |
| 10:00 - 10:30 a.m. | Induction | Induction Process Monitoring; TBA, Interpower Induction |
| 10:45 - 11:15 a.m. | Induction | Induction Heat Treat - Shortening the Time to PPAP; Sandra Midea, P.E., Induction Tooling Inc. |
| 9:15 - 9:45 a.m. | Emerging Technology | Machine Learning and Furnace Performance - A Powerful Future; Peter Sherwin, Eurotherm by Schneider Electric |
| 10:00 - 10:30 a.m. | Emerging Technology | Vacuum Heat Treating of Additive Manufactured Components; Bob Hill, Solar Atmospheres of W. PA |
| 10:45 - 11:15 a.m. | Emerging Technology | Modeling Surface Engineering Processes in Steels; Richard Sisson, Center for Heat Treating Excellence |
| 9:15 - 9:45 a.m. | Materials | Theory of Graphite, Carbon Fiber, & Ceramic Fiber; Jamie Kuriger, Toyo Tanso USA |
| 10:00 - 10:30 a.m. | Materials | Hybrid Fixturing; Bill Warwick, Schunk Carbon Technology |
| 10:45 - 11:15 a.m. | Materials | Metallurgy and Processing Experiences with High Temperature RA602CA Heat Treating Baskets; Marc Glasser/Roger Jones, Rolled Alloys/Solar Atmospheres, Inc. |
| 9:15 - 9:45 a.m. | Compliance | The Cost of (poor) Quality; Todd Wenzel, Throughput Bluestreak |
| 10:00 - 10:30 a.m. | Compliance | AMS-2750 Interpretation Challenges; Colin Thomas/Andrew Bassett, Aerospace Testing & Pyrometry, Inc. |
| 10:45 - 11:15 a.m. | Compliance | Principles of Pyrometry; Jason Schulze, Conrad Kacsik Instrument Systems |

WEDNESDAY, OCTOBER 5

| | | |
|--------------------|-----------------------|--|
| 8:00 - 8:30 a.m. | Operations | Using, Saving and Managing Energy in a Heat Treat Facility; Michael Stowe, Advanced Energy |
| 8:45 - 9:15 a.m. | Operations | Hydrogen/Nitrogen Recovery System; John McPhearson, Lectrodryer |
| 9:30 - 10:00 a.m. | Operations | Total Plant Scheduling; Becki Kerr, Cornerstone Systems, Inc. |
| 10:15 - 10:45 a.m. | Operations | Zero inventory Hydrogen Eases Compliance; David Wolff, Proton OnSite |
| 8:00 - 8:30 a.m. | Vacuum | Low Pressure Carburizing with Oil and Gas Quenching; Dennis Beauchesne, ECM USA Inc |
| 8:45 - 9:15 a.m. | Vacuum | Modern Vacuum Instrumentation: What to Consider When Upgrading; Steven Christopher, Super Systems Inc |
| 9:30 - 10:00 a.m. | Vacuum | Vacuum Heat Treatment Harden & Temper; Ben Bernard, Surface Combustion |
| 10:15 - 10:45 a.m. | Vacuum | New Developments in Vacuum Furnace Hot Zone Designs; Bill Jones, Solar Manufacturing, Inc. |
| 8:00 - 8:30 a.m. | Processes | High Nitrogen Carbonitriding – Improving Energy Efficiency of Powertrain Components; Michael Winter, United Process Controls |
| 8:45 - 9:15 a.m. | Processes | Controlled Nitriding of Stainless Steels; Jack Kalucki, Nitrex Metal, Inc. |
| 9:30 - 10:00 a.m. | Processes | Recent Developments in Modern Heat Treatment Processes; Thomas Metzger, PVA Industrial Systems GmbH |
| 10:15 - 10:45 a.m. | Processes | How to Control Process and Equipment Variability; Dan Herring, The HERRING GROUP, Inc. |
| 8:00 - 8:30 a.m. | Heat Treating Systems | Rotary Retort Furnaces Mesh with Fasteners; Mark Hemsath, SECO/WARWICK |
| 8:45 - 9:15 a.m. | Heat Treating Systems | Increasing Productivity in Atmospheric Carburizing; Curt Colopy, INEX Incorporated |
| 9:30a - 10:00a | Heat Treating Systems | Modular Batch Austemper Line Improves Utilization and Energy Efficiency and Supports Flexible Manufacturing; Patrick Weymer, JL Becker/Gasbarre Furnaces |
| 10:15a - 10:45a | Heat Treating Systems | Next Generation Industrial Furnace Systems; Joe Saliba, Can-Eng Furnaces International Ltd. |
| 8:00a - 8:30a | Fire Safety | Fire Safety in the Heat Treat - Part 1; Jason Safarz/Jim Roberts, Honeywell/CEC Combustion Safety |
| 8:45a - 9:15a | Fire Safety | Fire Safety in the Heat Treat - Part 2; Jason Safarz/Jim Roberts, Honeywell/CEC Combustion Safety |
| 9:30a - 10:00a | Fire Safety | Explosions - Where do They Start?; Jason Safarz/Jim Roberts, Honeywell/CEC Combustion Safety |
| 10:15a - 10:45a | Fire Safety | Fire! Who Ya Gonna Call?; Jason Safarz/Jim Roberts, Honeywell/CEC Combustion Safety |

TOP BENEFITS OF ATTENDING

FNA 2016

LEARN

the keys to **fire explosion prevention** and safety.

HEAR

solutions to your **everyday equipment maintenance** problems.

STUDY

the latest **technical information** on instrumentation & automation.

SEE

the latest **emerging technologies** in vacuum, induction and processes.

ACQUIRE

new solutions in operations and heat treating systems to minimize labor and **increase output**.

MEET

150+ suppliers that can **solve your operation and production needs**.

DISCOVER

the latest compliance issues with **AMS 2750 and Pyrometry**.

NETWORK

with the **best minds in heat treating** from all over the world.



FNA 2016 Educational Tracks:

- ✓ Equipment/Maintenance
- ✓ Emerging Technologies
- ✓ Induction
- ✓ Materials
- ✓ Compliance
- ✓ Fire Safety
- ✓ Vacuum
- ✓ Processes
- ✓ Heat Treat Systems
- ✓ Operations

FNA  2016

FNA Featured Keynote Speaker:
WALTER BOND –
The Keys to Peak Performance

“One of the best speakers you will ever see in your life.”

LEADERSHIP success
INSPIRATION INFLUENCE
IMPACT entrepreneurs
public speaking



FNA Title Sponsors:



FNA 2016

Oct. 3-5, 2016 • Nashville, Tennessee • FurnacesNorthAmerica.com

FNA 2016 EXHIBITOR LIST

COMPANY (*signifies MTI Membership)

Abbott Furnace Company
 Across USA Inc.
 Advanced Corporation for Materials & Equipments
 Advanced Energy Industries*
 Aerospace Testing & Pyrometry, Inc.*
AFC-Holcroft LLC* (Title Sponsor)
 Ajax TOCCO Magnethermic Corporation
 ALD Vacuum Systems, Inc.*
 Allied Mineral Products, Inc.
 Alloy Engineering Co.
 Ambrell Induction Heating Solutions
 Ashworth Bros., Inc.
 ASM International
 Atmosphere Engineering Company*
 Avion Manufacturing Co.*
 Bronkhorst USA
 BTU International
 Busch USA
 C. I. Hayes, Inc.*
 Can-Eng Furnaces Int'l Ltd.*
 Carbon Composites Inc.
 Ceramic Solutions, Inc.
 Chemtool Incorporated*
 Cleveland Electric Laboratories
 CMI Industry Americas
 Conax Technologies
 Conrad-Kacsik Instrument Systems, Inc.*
 Control Concepts Inc.
 Cooley Wire Products
 Cornerstone Systems, Inc.*
 Cress Manufacturing
 Custom Electric Manufacturing*
 CVD Equipment Corporation
 Danieli Centro Combustion SpA
 Daniels Fans
 DATAPAQ
 Distribution International
 DixiTech CNC*
 Dry Coolers, Inc.*
 DuBois Chemicals / Heatbath*
 Duraloy Technologies, Inc.
 ECM USA, Inc.*
 Econox
 Edwards Vacuum Ltd
 Elmet Technologies
 EMSCO, Inc.*
 Epcon Industrial Systems, LP
 Equipment Controls Company
 Eurotherm by Schneider Electric*
 Furnacare, Inc.
 Furnace Control Corp. A Member of United Process Controls
 G-M Enterprises*
 Gasbarre Furnace Group*
 Gear Solutions Magazine

Gefran, Inc.
 GeoCorp, Inc.
 GH Induction Atmospheres
 Graphite Machining, Inc.
 H. C. Starck, Inc.
 Heat Treating Services Unlimited, Inc.*
 Herakles (Safran Group)
 Honeywell Industrial & Commercial Thermal*
 Houghton International
 Idemitsu Lubricants America Corp.
 Induction Tooling, Inc.*
 Industrial Heating Equipment Association
 Industrial Heating Magazine*
 INEX Incorporated*
 Innova Techno Products PVT Ltd.
 International Thermal Systems LLC
 ION-HEAT
 IPS Ceramics Ltd.
 Ipsen USA*
J. L. Becker* (Title Sponsor)
 Jackson Transformer Company*
 Jensen Industries, Inc.
 Johnstone Co., Inc.
 L&L Special Furnace Co., Inc.
 Lectrodryer
 Lindberg/MPH
 LTG Incorporated
 Marathon Monitors, Inc. A Member of United Process Controls
 Material Interface, Inc.
 McDanel Advanced Ceramic Technologies
 McLaughlin Services LLC*
 Mercer Technologies, Inc.
 Metal Treating Institute*
 Metallurgical High Vacuum Corp.*
 Molybdenum & Tungsten International - Moltun International
 Morgan Advanced Materials
 Nanmac Corp.
 Ningbo Firewheel Thermal Insulation & Sealing Co., Ltd
 Nitrex Metal, Inc.
 Noble Industrial Furnace Co. Inc.
 North American Construction Services Inc.
 North American Cronite, Inc.*
 NOXMAT GmbH
 Oerlikon Leybold Vacuum
 Orton Ceramic Foundation
 Park Thermal International (1996) Corp.*
 PhoenixTM LLC
 PLANSEE USA LLC
 Power Parts International
 Praxair Inc.
 Premier Furnace/BeaverMatic
 Proceyde Corp.
 Protection Controls, Inc.

Proton OnSite
 PVA TePla AG
 PVT Inc.
 Qual-Fab, Inc.
 R.D. Technologies
 Radyne Corporation*
 Raytek Corp.
 Rock Valley Oil & Chemical Co.
 Rohde GmbH
 Rolled Alloys
 Rubig US, Inc.*
 Sandvik Heating Technology USA
 SBS Corporation*
 Schmidt + Clemens GmbH + Co. KG
 Schunk Carbon Technology, LLC *
 SECO/WARWICK Corporation*
 Selas Heat Technology
 Sentry Insurance*
 SGL Group - The Carbon Company
 Siemens Combustion Controls, Inc.
 Siemens Industry, Inc.
 Signature Vacuum Systems, Inc.
 Solar Manufacturing*
 South Tek Systems
 Stand Energy Corporation*
 Struers Inc.
 Super Systems, Inc.*
Surface Combustion, Inc.* (Title Sponsor)
 T & D Manufacturing Tungsten and Molybdenum
 Taylor-Winfield Technologies, Inc.
 TE Wire & Cable
 Temtek Solutions
 Tenova Core
 Thermal Care, Inc.
 Thermcraft, Inc.
 Thermo Transfer, Inc.
 Throughput | Bluestreak*
 Toyo Tanso USA
 Trillium US, Inc.
 Ultra Electronics - Furnace Parts*
 Upton Industries Inc.
 Vac-Aero International, Inc.
 Vacuum Research Corporation
 Verder Scientific
 W.H.Kay Co.
 Warner Power
 Waukee Engineering Company, Inc. A Member of United Process Controls
 Williams Industrial Service, Inc.*
 Wirco, Inc.*
 Wisconsin Oven Corporation
 WS Thermal Process Technology Inc.*
 Wuxi Junteng Fanghu Alloy Casting Co., Ltd
 Yokogawa Corp. of America
 ZIRCAR Refractory Composites, Inc.



HOTEL AND TRAVEL INFORMATION



TO BOOK YOUR HOTEL ONLINE VISIT:
www.furnacesnorthamerica.com

Nashville Renaissance Hotel & Convention Center
611 Commerce St. – Nashville, Tennessee
Phone Reservations: 1-877-901-6632
FNA Group Rate: \$189 Group Rate Code: FNA/MTI

ALMOST SOLD OUT



Overflow Hotel Information:
Hilton Doubletree 314 4th Avenue, North, Nashville, TN
Group Rate: \$219. Group rate code: FNA
To reserve a room, call 800-222-8733

ALMOST SOLD OUT

(deadline for group rate September 2, 2016)

Experience all that Music City has to offer within one distinctive property, the Renaissance Nashville hotel in downtown Nashville, Tennessee, perfectly positioned in the heart of the business district. A recently renovated luxury hotel in Nashville, TN, the Renaissance is conveniently connected to the Convention Center and provides easy access to many attractions including Bridgestone Arena, LP Field, B.B. King’s Blues Club, Country Music Hall of Fame & Museum, Schermerhorn Symphony Center, Historic Second Avenue District and the Johnny Cash Museum.



MTI Fall Meeting/FNA 2016 Registration Form

NASHVILLE, TN • OCT. 3-5, 2016



REGISTRATION FORM

A separate registration form must be completed for each company employee attending the MTI Fall Meeting

Registration Type _____

FIRST/LAST NAME: _____ Employee/Member Spouse/Guest Child

FIRST/LAST NAME: _____ Employee/Member Spouse/Guest Child

FIRST/LAST NAME: _____ Employee/Member Spouse/Guest Child

FIRST/LAST NAME: _____ Employee/Member Spouse/Guest Child

FIRST/LAST NAME: _____ Employee/Member Spouse/Guest Child

MEMBER POSITION _____

MEMBER COMPANY _____

MEMBER ADDRESS _____

CITY _____ STATE _____ COUNTRY/ZIP CODE _____

PHONE _____ FAX _____ E-MAIL _____
Required for meeting announcements

A. PRIMARY FUNCTION

- CEO/President/General Manager
- Guest
- Maintenance
- Manager/Supervisor
- Marketing/Sales
- Metallurgist/Supervisor
- Purchasing
- Quality Control/Assurance
- Technician/Operator

B. PURCHASING AUTHORITY

- Approve
- Recommend
- Specify

C. TYPE OF ORGANIZATION

- Consulting
- Education
- Government
- Heat Treating Captive
- Heat Treating Commercial
- Supplier To Industry
- Testing Facility/R&D

D. TOTAL EMPLOYEES AT THIS LOCATION

- 1-19 50-99 250-499 1000+
- 20-49 100-249 500-999

E. HEAT TREATING ACTIVITY (CHECK ALL THAT APPLY)

- Alloys Hardening (Q&T)
- Aluminum Non-Ferrous High Speed Steel
- Annealing Laser Heat Treating
- Austempering Low Temp Carbonitriding
- Brazing Marquenching
- Carbon Nitriding Nitriding
- Carburizing Sintering
- Composites Straightening
- Cryogenic Treating Tool Steel

F. PRIMARY INDUSTRY SERVED (CHECK ONE)

- Aerospace Military
- Agricultural Mining Equipment
- Automotive Petroleum/Utilities
- Basic Steel (Mill) Production Machinery
- Forgings Railroad
- Foundries Stampings
- Home Appliances Steel Warehousing
- Material Handling Equipment

Registration includes entry into the FNA Conference with 35 Technical Sessions, FNA Expo, 3 Networking Receptions and the MTI Dinner Gala (does not include beverages during MTI Dinner Gala.)

| |
|--|
| Member/Employee: \$324 Qty: _____ Total: _____ |
| Spouse/Guest: \$175 Qty: _____ Total: _____ |
| Children* (3-12) \$75 Qty: _____ Total: _____ |
| Grand Total to Be Processed: \$ _____ |

METHOD OF PAYMENT

NOTE: THIS CHARGE WILL BE PROCESSED SECURELY BY PAYPAL

- AMEX VISA MASTERCARD DISCOVER COMPANY CHECK

CARD # _____ EXPIRATION _____ SECURITY _____

NAME ON CARD _____

BILLING CITY _____ BILLING STATE _____

SIGNATURE _____