Session 8
9:30 a.m.
Gating And Feeding
Oxides and Gating
Dan Hoefer, Eck Industries, Manitowoc, WI
Optimizing Design of a Gating System
Carlos Esparza, Magma Foundry Technologies, Schaumburg, IL
Simulation of Filling and Solidification
Steve Sikorski, Magma Foundry Technologies, Schaumburg, IL
Gating and Feeding
Cory Sents, Carley Foundry, Blaine, MN
Hot Tear Modeling for A206 and 535
Jiten Shah, Product Development & Analysis, Naperville, IL; Dave Weiss, Eck Industries, Manitowoc, WI
12:00 noon
Conference Concludes
1:00 p.m.
AFS Aluminum Division 2 Committee Meeting

DESIGN AND PRODUCTION OF HIGH QUALITY ALUMINUM CASTINGS OCTOBER 5-7, 2015 NASHVILLE, TN

Over 25 Experts in the Aluminum Industry Gathered in One Location to Help You Improve Your Casting Quality

Topics Include:
- Aluminum Melting, Treatment and Cleanliness
- New Developments in Aluminum Casting
- Inspection and Quality
- Sand Casting
- Permanent Mold Casting
- Gating and Feeding

REGISTRATION FEES
AFS Member: $695 • Non-AFS Member: $845
w/Free Shipping

BOOK (Optional)
AFS Member: $225 • Non-AFS Member: $300 w/Free Shipping

I would like to attend the plant tour.
I would like to purchase "Best Practices in Aluminum Metalcasting" by Geoffrey Sigworth when you register for the show, and shipping is FREE.

Hotel Information:
Registrants should make hotel reservations directly with the Sheraton Music City Hotel, 777 McGavock Pike, Nashville, TN 37214.

Room Rate: Our special group rate is $159.00/night, standard/ double. You must mention you are with the American Foundry Society and this conference to receive this rate.

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RETURN FORM TO:
American Foundry Society, 35169 Eagle Way, Chicago, IL 60678-1331
Contact AFS Customer Service at 800/537-4237   Fax: 847/924-7848

For additional registrants, copy this form.
Monday, October 5
7:30 a.m. Registration
8:00 a.m. Networking Breakfast
9:00 a.m. Conference Begins/Welcome

Session 1
9:00 a.m. Aluminum Melting, Treatment and Cleanliness
AFS Aluminum Melt Survey
Brian Began, Foseco, Cleveland, OH

Keynote: Best Practices for Degassing, Grain Refinement and Eutectic Modification
Geoffrey Sigworth, GKS Engineering, Dunedin, FL

Oxides and Their Influence on Mechanical Properties of Aluminum Castings
Qigui Wang, GM Global Powertrain Engineering, Pontiac, MI

Advanced Methods for Aluminum Cleanliness Assessment
S.W. Hudson, Advanced Casting Research Center, Worcester Polytechnic Institute, Worcester, MA

11:30 a.m. Lunch

Statistical Analytics of Melt Cleanliness
Wenwu Shi, Foseco, Pittsburgh, PA

Session 2
2:00 p.m. New Developments in Aluminum Casting
A20X High Strength Aluminum Alloy
Alan Dustan, Aeromet, Aeromet International PLC, London, England

He Injection
Tom Woods, Michigan Technological University, Houghton, MI

Intelligent Melt Treatment for the Production of Aluminum Castings
Roger Kendrick, Foseco International, Staffordshire, England

Expanding Opportunities Through Additive Manufacturing
Tom Prucha, American Foundry Society, Schaumburg, IL

Case Studies in Additive Manufacturing
Dave Weiss, Eck Industries, Manitowoc, WI
Randy Oehrlein, Carley Foundry, Blaine, MN

Elongation Improvement in 357 Alloys Through Modification and Trace Element Additions
Dave Weiss, Eck Industries, Manitowoc, WI
Tom Wood, Michigan Technological University, Houghton, MI

Session 3
8:00 a.m. Design Principles for Aluminum Components
Principles of Effective Casting Design and Engineering
Mike Gwynn, Mount Pleasant, SC

AFS Casting Alloy Data Selector (CADS)
Jiten Shah, Product Development & Analysis, Naperville, IL

Tuesday, October 6
7:30 a.m. Continental Breakfast

Session 4
9:30 a.m. Inspection and Quality
Considerations for Destructive Testing
Dave Weiss, Eck Industries, Manitowoc, WI

Understanding Aluminum Microstructures
Robin Foley, University of Alabama, Birmingham, AL

Prediction of As-Cast & Heat-Treated Microstructure and Mechanical Properties in Aluminum Sand & High Pressure Die Castings
Jianzheng Guo and Sam Scott, ESI North America, Cincinnati, OH; Weisheng Cao, Computherm LLC, Madison, WI

11:30 a.m. Lunch

Afternoon Options: Plant Tour or Session 5: Sand Casting

Plant Tour:
Nissan Assembly Plant, Smyrna, TN
Bus leaves hotel at 12 noon.
Plant tour 1-2 p.m. Return to hotel 2:30 p.m.
(Limited space available, advance registration is required)

Session 5
1:00 p.m. Sand Casting
New Developments in Mold and Core Binder Technology for Aluminum Casting
Doug Trinowski, Huettenes-Albertus Chemische Werke GmbH, Duesseldorf, Germany; Amine Serghini HA International LLC, Westmont IL

Direct, Quietscent, Clean, Controlled Counter Gravity Aluminum Filling
Sam Ramnattari, Western Michigan University

Simulating Core Blowing
Mauricio Velazquez, Magma Foundry Technologies, Schaumburg, IL

Session 6
2:30 p.m. Permanent Mold Casting
Primer on Permanent Mold Tooling Design and Costs
Dave Groth, Winona Pattern & Mold, Winona, MN

Panel: Thermal Management of Molds
Randy Oehrlein, Carley Foundry, Blaine, MN; Dave Groth, Winona Pattern & Mold, Winona, MN; Bob Pischel, Foseco, Cleveland, OH; Adam Loukus, REL Inc., Calumet, MI
- Permanent Mold Coolers and Chillers
- Chilling Permanent Molds Through Use of Inserts
- Permanent Mold Coatings

4:30 p.m. Day 2 of Conference Concludes

Evening: Nashville Event Opportunities
AFS will provide transportation to the music district in downtown Nashville. Enjoy the free time for dinner and exploring the city.

Extend Your Stay and Attend The Iron Melting Conference at the Same Location
Oct. 7-9, 2015

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8:00 a.m.  
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Conference Begins/Welcome

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AFS Aluminum Melt Survey  
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Oxides and Their Influence on Mechanical Properties of Aluminum Castings  
Qigui Wang, GM Global Powertrain Engineering, Dunedin, FL

Advanced Methods for Aluminum Cleanliness Assessment  
S.W. Hudson, Advanced Casting Research Center, Worcester Polytechnic Institute, Worcester, MA

11:30 a.m.  
Lunch

**Session 2**

2:00 p.m.  
New Developments in Aluminum Casting  
A20X High Strength Aluminum Alloy  
Alan Dostan Aeromet, Aeromet International PLC, London, England

He Injection  
Tom Woods, Michigan Technological University, Houghton, MI

Intelligent Melt Treatment for the Production of Aluminum Castings  
Roger Kendrick, Foseco International, Staffordshire, England

Expanding Opportunities Through Additive Manufacturing  
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**Wednesday, October 7**

**7:30 a.m.**
Continental Breakfast

**Session 7**

8:00 a.m.
**Facilities Management**

Energy Measurement and Efficiency
James Wiczer, Sensor Synergy, Inc., Vernon Hills, IL

Plant Safety in the Aluminum Foundry
Ted Schorn, Enkei America, Inc., Columbus, OH

**Session 8**

9:30 a.m.
**Gating And Feeding**

Oxides and Gating
Dan Hoeftert, Eck Industries, Manitowoc, WI

Optimizing Design of a Gating System
Carlos Esparza, Le Sueur Inc., Le Sueur, MN

Simulation of Filling and Solidification
Steve Sikorski, Magma Foundry Technologies, Schaumburg, IL

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