



Upcoming Events

Modern Electric Furnace Steelmaking –

A Practical Training Seminar

4–8 February 2019
The Francois Marion Hotel
Charleston, S.C., USA

Long Products Rolling –

A Practical Training Seminar

25–28 February 2019
Homewood Suites by Hilton
Charleston Historic District
Charleston, S.C., USA

The Making, Shaping and Treating of Steel: 101

26–27 February 2019
Doubletree by Hilton Memphis Downtown
Memphis, Tenn., USA

Sheet Processing and Finishing Lines –

A Practical Training Seminar

17–21 March 2019
The Battle House Renaissance Mobile Hotel
Mobile, Ala., USA

Specialty Alloy and Foundry

A Practical Training Seminar

18–21 March 2019

The Hilton Harrisburg
Harrisburg, Pa., USA

Plant tour:
Carpenter
Technology Corp.



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About the Program

This two-and-a-half-day seminar provides an overview of melting, refining, and solidification in stainless and specialty steel mills and foundries. Products, process cycles and safety will be discussed along with alloy chemistry, material selection, induction furnace melting, refractories, refining, ingot casting and remelting.

Who Should Attend

This seminar is geared toward mill or foundry meltshop managers, engineers, operators, suppliers, and students who need an introduction to stainless and specialty steel melting, refining, ingot casting and remelting.

Professional Development Hours

This course may qualify for up to 15.75 Professional Development Hour (PDH) credits. Each attendee will receive a certificate listing the quantity of PDH credits earned for the course. This course is not approved for PDH credits in New York, Florida, North Carolina and Oklahoma.

Organized By

AIST's Specialty Alloy & Foundry Technology Committee.

Registration Includes

Breakfasts and lunches Tuesday and Wednesday; breakfast Thursday; reception Tuesday; plant tour with bus transportation; and a course workbook or flash drive including presentations.

Hotel Accommodations

A block of rooms has been reserved at The Hilton Harrisburg. Please call the hotel at +1.717.233.6000 by 25 February 2019 to secure the AIST discount rate of US\$149 per night for single/double occupancy.

AIST Members

US\$845

by 4 February 2019

US\$945

after 4 February 2019

AIST Non-Members

US\$1,060

by 4 February 2019

US\$1,160

after 4 February 2019



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Featured Plant Tour:
Carpenter Technology Corp.

AIST.org

Schedule of Events



Monday, 18 March 2019

4–6 p.m.
Registration

Tuesday, 19 March 2019

7 a.m.
Registration and Breakfast

8 a.m.
[Carpenter Technology Corp. Keynote Presentation](#)

8:30 a.m.
[Markets and Applications for Foundries and Specialty Steels](#)
Raymond Monroe, Steel Founders' Society of America

9:30 a.m.
Break

9:45 a.m.
[Induction Preventive Maintenance Procedures](#)
Charles Fink, Inductotherm Corp.
This presentation will cover the recommended procedure typically performed on solid-state induction melting systems. This includes the solid-state power supply, furnace, cooling system, hydraulic system and bus bars that can be found in a meltshop using induction melting equipment.

10:45 a.m.
Break

11 a.m.
[Induction Melting Practices](#)
Raymond Monroe, Steel Founders' Society of America

Noon
Lunch

1 p.m.
[EAF Steelmaking](#)
Harriet Dutka, SANGRAF International

2 p.m.
Break

2:15 p.m.
[Material Selection](#)
Dennis Rodal, ELG Haniel Metals Corp.

3:15 p.m.
Break

3:30 p.m.
[Non-Induction Melting](#)
Allen Chan, Praxair Inc.
This presentation briefly reviews melting: energy required and forms of energy, basic furnace types, electric arc furnace operations, and safety.

Wednesday, 20 March 2019

7 a.m.
Breakfast

8 a.m.
[Steel Refining](#)
Allen Chan, Praxair Inc.
This presentation briefly reviews the fundamentals of steel refining: degassing, desulfurization, decarburization, quality steel processing techniques and safety.

9 a.m.
Break

9:15 a.m.
[Solidification and Casting: Foundry](#)
Raymond Monroe and Diana David, Steel Founders' Society of America
This presentation will talk about the metallurgy of steel castings. An overview on foundry engineering will be given. The filling and solidification of steel in molds will be discussed. Typical microstructures and casting defects will also be presented.

10:15 a.m.
Break

10:30 a.m.
[Casting of Specialty Steel Ingots](#)
Mark Suer, AK Steel Research and Innovation Center
The principles of casting specialty steel ingots will be presented. This presentation will focus mainly on the operational aspects of bottom-pour casting. Some of the topics that will be discussed are casting hardware, molds and mold life and casting defects.

Noon
[Boxed Lunch and Plant Tour of Carpenter Technology Corp.](#) 

4–6 p.m.
[Reception and Panel Discussion](#)
Moderator: Allen Chan, Praxair Inc.
Panelists: Raymond Monroe, Steel Founders' Society of America; Dennis Rodal, ELG Haniel Metals Corp.; Mark Suer, AK Steel Research and Innovation Center; Harriet Dutka, SANGRAF International

Thursday, 21 March 2019

7 a.m.
Breakfast

8 a.m.
[Remelting Ingots](#)
Andrew Elliott, Consarc Corp.

9 a.m.
Break

9:15 a.m.
[The Elements](#)
Diana David, Steel Founders' Society of America
This presentation will cover the alloying additions in making steel and specialty alloys and their effects on the microstructure and properties. Tramp elements and gases will also be discussed.

10 a.m.
Break

10:15 a.m.
[Basic Refractories](#)
Herman Moggee, RHI Magnesita
A basic overview of refractory use and selection in the stainless steel, alloy and foundry industry. What are the typical pitfalls influencing refractory performance?

11 a.m.
Break

11:15 a.m.
[Specialty Refractory Shapes](#)
Andrew Pinskey, Holland Manufacturing Corp.
Refractories are used in metal processing. Special refractory shapes are designed for a specific purpose in metal processing. This presentation will examine and describe refractory shapes.

Noon
Adjourn Conference