Continuous Casting
A Practical Training Seminar

17-20 October 2016   -   Memphis, Tenn., USA   -   The DoubleTree Hotel by Hilton Memphis Downtown

About the Course
Developed and presented with the talented resources of the Continuous Casting Technology Committee, this informative program targets the heart of steelmaking: the frontline operator. The key focus of the program is to discuss the practical aspects of casting slabs, billets and blooms, while introducing the theoretical concepts. By achieving the proper teaching balance, attendee understanding of the process is ensured without the need for a technical background. This course is a must for the progressive, informed and educated steelmaker of the future!

Registration Fees
Advance registration by 5 September 2016: Member US$745, Non-member US$960. Registration after 5 September 2016: Member US$845, Non-member US$1,060. Registration includes continental breakfasts, lunches, and continuous breaks Tuesday and Wednesday; reception Wednesday; continental breakfast Thursday; plant tour; and a course workbook or flash drive including presentations.

Sponsored By
AIST’s Continuous Casting Technology Committee.
Monday, 17 October 2016

4–6 p.m.
Registration

Tuesday, 18 October 2016

7 a.m.
Registration and Continental Breakfast

8 a.m.
Historical Perspective of Continuous Casting
Jack Young, Hatch Ltd.

9 a.m.
Continuous Casting Design and Technology (Slab and Long Products)
Joseph Laughlin, SMS USA LLC, and Walt Antos, Primetals Technologies USA LLC
Presentation covering an overview of continuous casting design and technology from two original equipment manufacturers’ perspectives.

9:45 a.m.
Break

10 a.m.
An Operator’s Guide to Continuous Casting Flux, What It Is, What It Does and How It Is Used
Marc McClymonds, Imerys Metalcasting Solutions
An overview of continuous casting mold fluxes including key properties and functions, proper selection criteria, and application practices. Product design and composition, raw material selection, and testing will also be discussed.

11 a.m.
Initial Solidification and Oscillation Mark Formation
Brian Thomas, Colorado School of Mines

Noon
Lunch

1 p.m.
Effects of Spray Nozzles in Secondary Cooling
Stephen Swoope, Delavan, and Eric Rosenow, NALCO Water, an Ecolab Company
A review of nozzle types and their impacts on casting. An introductory level overview of basic nozzles and their operation for secondary cooling systems in the caster. The impacts of fouled nozzles related to poor maintenance schedules.

1:45 p.m.
Sources of Reoxidation and Why to Avoid
Ronald O’Malley, Missouri University of Science and Technology
To produce high-quality cast products, steel must be protected from reoxidation. Reoxidation can occur in the ladle, at secondary ladle metallurgy operation, and also in the transfer operations from ladle to tundish and tundish to the mold. Various techniques are described that can be used to minimize reoxidation.

2:45 p.m.
Break

3 p.m.
Caster Breakouts
William Emling, SMS USA LLC
Review of various causes for breakouts and discussion of systems and solutions designed to prevent them. This talk will closely follow the chapter in the Making, Shaping and Treating of Steel, 11th Edition, Casting Volume.

For more information, visit
AIST.org/technologytraining
3:45 p.m.  
**Caster Quality Defects and Their Potential Causes**  
Ronald O’Malley, Missouri University of Science and Technology  
The surface and internal quality of continuously cast slabs and billets is intimately linked to the caster design and to the operating and maintenance practices employed in the continuous casting process. Common causes for five classes of continuous casting defects (longitudinal cracking, transverse cracking, slivers and lamination defects, internal cracking, and segregation defects) will be reviewed and linked to these design and practice influences.

5 p.m.  
Adjourn
2:45 p.m.  
**Panel Discussion**  
Panelists: Ian Deeks, Nucor Steel–South Carolina; Ronald O’Malley, Missouri University of Science and Technology; Richard Besich, ArcelorMittal Indiana Harbor

4 p.m.  
**Reception**  
Sponsored by [Falk PLI](http://www.falkpli.com)

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**Thursday, 20 October 2016**

7 a.m.  
Continental Breakfast

8 a.m.  
Plant Tour of Nucor Steel Memphis Inc.

Noon  
Return From Plant Tour and Adjourn