LONG PRODUCTS ROLLING
A PRACTICAL TRAINING SEMINAR

11–13 FEBRUARY 2020
Omni Jacksonville Hotel • Jacksonville, Fla., USA
Plant Tour: CMC Steel Florida

ABOUT THE PROGRAM

This seminar will give an introduction to the process, equipment and ancillaries utilized to produce long products; the primary focus is on the process and equipment customarily found within the rolling mill building, i.e., reheat furnace, rolling mill and finishing end. The seminar will contain both theoretical presentations and real-world case studies from long products producers in North America. The presenters represent a cross-section of industry experts in equipment, process, operations and maintenance. The seminar aims to expand an attendee's knowledge of the complete process and how safety, quality, yield, and facility utilization can be affected at each step.

WHO SHOULD ATTEND

Personnel involved in the production or promotion of long products, i.e., mill managers, rollers, roll shop, floor operators, maintenance, sales, downstream processors and other support personnel who wish to gain a better understanding of the long products production process and final end products.

PROFESSIONAL DEVELOPMENT HOURS

This course may qualify for up to 18.25 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 Long Products Technology Committee.

BRING YOUR OWN YOUNG PROFESSIONAL
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Visit AIST.org/byoyp for more information.

REGISTRATION INCLUDES

Breakfast and lunch Tuesday–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 Omni Jacksonville Hotel. Please call the hotel at +1.800.843.6664 by 20 January 2020 to secure the AIST discount rate of US$149 per night for single occupancy.

AIST MEMBERS	
US$845	US$945
by 27 December 2019	after 27 December 2019

AIST NON-MEMBERS	
US$1,090	US$1,190
by 27 December 2019	after 27 December 2019

FEATURED PLANT TOUR:
CMC Steel Florida

AIST.ORG

Monday, 10 February 2020

4–6 p.m.
Registration

Tuesday, 11 February 2020

7 a.m.
Registration and Breakfast

8 a.m.
Introduction
Kevin Barbee, Danieli Corp.

8:05 a.m.
Welcome and Overview of CMC Steel Florida
Ty Hall, CMC Steel Florida

8:30 a.m.
Changing the Mindset for a Safer Environment
Joe Jacobin and Derek Voight, Nucor Steel–Berkeley
The journey to changing the safety mindset in the steel industry involves a few basic steps. Included will be discussion and examples on how to create movement toward changing the safety mindset in one's organization.

9:30 a.m.
Break

9:45 a.m.
Rod/Bar Products and Applications
Bob Cryderman, Colorado School of Mines
This presentation provides a summary of bar and rod applications in finished parts, as well as how the parts are used in service. Key processes utilized to convert hot-rolled product into finished parts are described, including straightening, inspection, cold finishing, forging, in-process heat treatment, machining and final heat treatments.

10:45 a.m.
Rolling Mill Metallurgy
Jonathan Straetker, Nucor Steel–Nebraska
Discussion will focus on topics relating to steel and hot working processes.

Noon
Lunch

1 p.m.
Pass Design and Rolling Theory
Joseph Kennedy, Quad Engineering Inc.
Pass design terminology, basic rolling principles and examples of their application and how an operator can use rolling theory to improve decisions made in the mill.

2 p.m.
Break

2:15 p.m.
Pass Design and Rolling Theory, Part II
Joseph Kennedy, Quad Engineering Inc.

3:15 p.m.
Break

3:30 p.m.
Mill Addition and Spooler at SDI Columbia City
Chris Petrie, Steel Dynamics Inc.–Structural and Rail Div.

4:30 p.m.
Question-and-Answer Session

5–6 p.m.
Reception

Wednesday, 12 February 2020

7 a.m.
Breakfast

8 a.m.
Plant Tour of CMC Steel Florida 🛡

Noon
Lunch

1 p.m.
Reheat Furnace Basics
Keenan Cokain, Bloom Engineering Co. Inc.
Learn about the many different types of reheat furnaces and why they are used. In addition, heating strategies will be discussed to maximize efficiency, production and product quality while minimizing yield loss.

2:15 p.m.
Break

2:30 p.m.
Descaling and Spray Issues in Hot Rolling
Lesli Peterson, Spraying Systems Co.
Topics include nozzle theory, nozzle selection, and placement and nozzle maintenance as it relates to descale practices in hot rolling.

3:15 p.m.
Technology of Merchant Bar Mills
Mario Fabro, SMS group Inc.
Steel shapes such as angles, channels and flats, commonly known as merchant bars, are used in a variety of industries, such as light commercial construction, industrial fabrication and various manufacturing processes. The forming of these shapes in a rolling mill presents some challenges not present when rolling simple rounds, such as complex pass sequence, guiding, cooling, straightening and packaging. This presentation will cover most of them and the effective solutions in modern merchant bar rolling.

4:30 p.m.
Question-and-Answer Session

Thursday, 13 February 2020

7 a.m.
Breakfast

8 a.m.
Torque and the Rolling Stand
Kevin Barbee, Danieli Corp.
This segment provides a comprehensive description of the mechanical components of a rolling mill stand, how they function and how they handle the stress of rolling. An in-depth investigation of both the driveline and the mill stand will include how the components work together, common failure modes, preventive and predictive maintenance strategies, early indicators of functional failures, and product quality problems that can stem from driveline wear.

9:15 a.m.
Break

9:30 a.m.
Work Rolls
Bill Posey, SinterMet LLC
The presentation will focus on rolls in contact during the hot rolling of long products. Various materials and applications will be discussed.

10:45 a.m.
Motors, Drive and Speed Control
Fermin de la Maza, Russula Corp.

Noon
Lunch

1 p.m.
Cutting Technologies
George Burnet, Braun Machine Technologies LLC, Peter Haas, Haas Saw & Supply, and Mario Fabro, SMS group Inc.
This training module will cover three types of cutting: abrasive cutting, saw cutting and shear cutting. It will analyze various saw cutting methods used by long products rolling mills. Included in the discussion will be a detailed review of safety issues, cost calculations, comparison of saw cutting machines and saw blade designs, maintenance and use of saw blades, troubleshooting guidelines, and cutting parameters. Information will also be provided on saw blade tracking, performance analysis, wear life comparison, creating benchmarks for improvement, and planned saw blade changes to prevent mill downtime due to cutting issues.

2:45 p.m.
Break

3 p.m.
In-Line Inspection Systems for Long Product Mills
Marco Appio, Danieli Automation

3:45 p.m.
Predictive Maintenance Tools and Strategies for Long Products
Dan Phillips, Regal Beloit America Inc.
Proactive maintenance programs have been shown to be 77% less than the cost of a reactive program. Beginning with a foundation in reliability-centered maintenance, the methods for achieving these financial results will be presented with a focus on monitoring critical asset health. Advanced technologies well suited for low and varying speeds, intermittent loading, process variability, etc., are often necessary as opposed to traditional techniques to ensure that the equipment function is maintained. Proper selection and implementation of those technologies with real-world examples will be included.

4:30 p.m.
Question-and-Answer Session

5 p.m.
Adjourn Conference