



Rod and Bar Rolling

A Practical Training Seminar

20–23 February 2017

Atlanta, Ga., USA

The Atlanta Marriott Marquis





About the Program

This seminar will focus on breaking down key mill elements and how controlling these elements will positively affect hot-rolled as-rolled quality, facility utilization and yields. The presenters will cover the basic making of steel, readying a mill for its production cycles, reheat furnace, work rolls and rolling practices that affect mill quality through final customer requirements. A technical look at rolling forces will increase one's understanding of torque and how it relates to mill rolling equipment. In addition, the presentations will include a realistic approach to safety and the basic theory of rolling.

Who Should Attend

Rolling personnel, i.e., mill managers, rollers, roll shop, setup, floor operators, maintenance, and other support personnel who wish to gain a better understanding of the rod and bar rolling process and final end products.



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YOUNG PROFESSIONAL**

Visit AIST.org/byoyp for more information

Organized By

AIST's Rod & Bar Rolling Technology Committee.

Event Sponsor



Spraying Systems Co.[®]

Experts in Spray Technology

Schedule of Events

Monday, 20 February 2016

4–6 p.m.
Registration

Tuesday, 21 February 2016

7 a.m.
Registration and Continental Breakfast

8 a.m.
Introduction

8:05 a.m.
Overview of Gerdau Long Steel North America Cartersville Mill and Status of the U.S. and Global Steel Industry
Jim Christina, Gerdau Long Steel North America Cartersville Mill

8:30 a.m.
Changing the Mindset for a Safer Environment
Matt Blich, Nucor Steel–Nebraska, and Jerry Herrmann, Nucor Steel–Berkeley
Overcoming mental challenges can be tough in the steel industry, but it is imperative if we want to be injury-free. This presentation will discuss some of the common errors made and loss of focus that occurs in the mill. Also explained will be how human behaviors influence our safety.

9:30 a.m.
Break

9:45 a.m.
Metallurgy of Rod and Bar Rolling
Terry Rasmussen, Nucor Steel–Nebraska
Discussion of some metallurgical aspects of steel bar and rod rolling.

10:45 a.m.
Break

11 a.m.
Reheat Furnace: Operations and Safety
Dan Davies, Fives ST Corp., and Ty Hall, CMC Steel Texas

This session will discuss the operation of a furnace to properly and efficiently heat steel with an emphasis on safely operating and starting a furnace.

Noon
Lunch

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

2:30 p.m.
Break

2:45 p.m.
Scale in a Rolling Mill
Oldair Sasso, Spraying Systems Co.
Scale forms in reheat furnace and then again during rolling. Scale is a yield loss and must be controlled through proper surface.

3:45 p.m.
Break

4 p.m.
Automation and Long Products
Raffaele Treu, Danieli Corp.

5 p.m.
Reception

Wednesday, 22 February 2016

7 a.m.

Continental Breakfast

8 a.m.

Work Rolls

Tom Kane, WHEMCO

9:30 a.m.

Break

9:45 a.m.

Rolling Forces: Spindles — Gearing — Torque Devices

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 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.

10:45 a.m.

Break

11 a.m.

Rolling Forces: Spindles — Gearing — Torque Devices (cont'd)

Kevin Barbee, Danieli Corp.

Noon

Lunch

1 p.m.

Cold Product Down-Cut Shears

Robert Bennett, Danieli Corp.

Cold product shears are critical pieces of equipment in a bar mill. Located just downstream of the cooling bed, these shears take the cooling bed material cut to multiples of the customers' length and cut it to the proper ordered length. These "cut" lengths must arrive at the customer within length tolerance and exhibiting acceptable sheared ends. Understanding these shears and how to maintain them is a very important operator and maintenance function.

2:30 p.m.

Break

2:45 p.m.

Motors, Drives and Speed Control

Steve Pegg, Russula Corp.

This presentation will describe the issues and challenges in selecting a proper drive system and mill automation for long product rolling mills. The emphasis will be on practical applications.

4 p.m.

Panel Discussion and Seminar Review

Thursday, 23 February 2016

7 a.m.

Continental Breakfast

8 a.m.

Plant Tour of Gerdau Long Steel North America Cartersville Mill



Noon

Return From Plant Tour and Adjourn

Registration

AIST Members

US\$745

by 9 January 2017

US\$845

after 9 January 2017

Non-Members

US\$960

by 9 January 2017

US\$1,060

after 9 January 2017

Registration Includes

Continental breakfasts, lunches, and continuous breaks Tuesday and Wednesday; reception Tuesday; continental breakfast Thursday; plant tour with bus transportation; and a course workbook or flash drive including presentations.

Hotel Accomodations

A block of rooms has been reserved at The Atlanta Marriott Marquis. Please call the hotel at +1.404.521.0000 or +1.888.855.5701 by 30 January 2017 to secure the AIST discount rate (AIST6) of US\$169 per night for single occupancy.

Featured Plant Tour

Gerdau Long Steel North
America Cartersville Mill



Upcoming Events

- > Scrap Supplements and Alternative Ironmaking 7
19–21 February 2017
Wyndham Lake Buena Vista > Orlando, Fla., USA
- > Cold Rolling Fundamentals — A Practical Training Seminar in conjunction with System Automation Fundamentals
5–9 March 2017
Hyatt Regency Indianapolis > Indianapolis, Ind., USA
- > The Making, Shaping and Treating of Steel: 101
7–9 March 2017
The Edward Hotel and Convention Center > Dearborn, Mich., USA
- > Steel Mill Combustion and Thermal Systems
21–23 March 2017
Holiday Inn Vanderbilt > Nashville Tenn., USA
- > 24th Annual Crane Symposium
11–13 June 2017
The Omni William Penn > Pittsburgh, Pa., USA



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