



Hot Rolling and Finishing of Steel Course 20th to 22nd April 2020

COURSE OVERVIEW

The Hot Rolling and Finishing of Steel course provides a comprehensive understanding of how continually cast steel is transformed into usable products for the many varied applications of steel. The course is designed to combine both practical and theoretical aspects of the rolling and subsequent finishing processes employed across the steel industry.

COURSE SPEAKERS:

The course will be delivered by experienced personnel from operational, technical and R&D backgrounds; selected from the Materials Processing Institute, steel companies, suppliers and consultancies.

WHO SHOULD ATTEND

- > Steel Manufacturers
- > R&D Personnel
- > Technologists
- > Quality Control
- > Steel Supply Chain
- > Steel Specifiers and Purchasers
- > PhD/Eng Doc Students

CONTENT

- > Basic Principles of Physical Metallurgy
- > Input Material, Quality and Defects
- > Reheating
- > Rolling Mill Design and Technology
- > Product Rolling Methodologies
- > Science of Rolling
- > Finishing Processes
 - Cooling
 - Coiling
 - Straightening
 - Cutting
- > Heat Treatment
- > Descaling
- > Products and Applications
- > Welding

LEARNING OUTCOMES

The course will provide an in depth knowledge of how to convert a cast "semi Finished" product into a rolled product that is suitable for the end application. The metallurgical principles involved will be described and the engineering, maintenance and process control considerations will be discussed.

ORGANISATION/REGISTRATION

Materials Processing Institute
Eston Road
Middlesbrough, TS6 6US
United Kingdom
Tel: + 44 (0)1642 382000
email: training@mpiuk.com
Website: www.mpiuk.com/training

COURSE VENUE & FACILITIES

The course will be held at the Materials Processing Institute, Middlesbrough, United Kingdom.

COURSE PRICE

£750 + VAT / Subject to availability.
This price includes lunches and refreshments.

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INDICATIVE COURSE PROGRAMME

Day 1

Monday 20th April 2020

09:00 -17:00

Introduction

Metallurgical Considerations

- Review of phase transformations

Metallurgical Considerations

- Cast microstructures and metallurgy
- Cast product quality and defects

Reheating

- Principles
- Furnace types
- Control

Rolling Mill Design and Technology

- Instrumentation
 - Control systems
 - Engineering and reliability
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Day 2

Tuesday 21st April 2020

09:00 -17:00

Product Rolling Methodologies

- Plate - TMCR etc.
- Strip
- Wire Rod
- Sections/Rail

Science of Rolling

- Mill torques
 - Bite angles etc.
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Day 3

Wednesday 22nd April 2020

09:00 -17:00

Finishing Processes

- Cooling
- Coiling
- Cutting/Shearing
- Levelling/Straightening/Decoiling

Heat Treatment

Descaling

Products and applications

Welding

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