

14<sup>th</sup> international seminar  
including steel plant tour

# Steel Ladle Lining

Refractory concepts for a complex reactor

16 – 18 June 2026  
Düsseldorf, Germany



## DIRECTED BY

Dr. Andreas Buhr  
Dr. Helmut Lachmund

## TARGET GROUP

The wear of refractory materials in the secondary metallurgy is particularly high. These high wear mechanisms are complex, but mainly caused by slags. High temperatures, long-terming treatment and turbulences of stirring gas are also important factors for wear and failures.

Maintenance and operating personnel, supervisors responsible for plant and unit operations, and managers responsible for decisions on refractory problems will learn about new materials and installation methods.

## VENUE / SEMINAR HOTEL

NH Hotel Düsseldorf City North  
Münsterstr. 230-238  
40470 Düsseldorf, Germany  
<https://www.nh-hotels.com/en/hotel/nh-duesseldorf-city-nord>

The Steel Academy will automatically make a room booking for the participants at the NH Düsseldorf City North from 16 - 18 June 2026 for a special rate of EUR 113 per night incl. breakfast. The hotel room bill will be settled by you upon departure. Please advise at your registration, if you do not need a reservation or whether you would like to stay longer in the hotel.

## ORGANISATION / REGISTRATION

Steel Academy • Steel Institute VDEh  
Mr. Peter Schmieding  
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## CONTENT

- Trends in clean steel technology and steel ladle lining
- Demands on refractories for secondary metallurgy
- Salzgitter Flachstahl: Improvements of the steel ladle linings
- DEW: Refractory lining for varying operating conditions
- thyssenkrupp Steel: Improvement of lining for a 400 mt steel ladle
- ArcelorMittal: Ladle lining for various steel grades – How to challenge your refractory supplier
- Tata Steel IJmuiden: Steel ladle lining for flat steel production
- SSAB Finland: Monolithic lining in a 3-converter-shop
- PAHAGE: Purging plugs in steel ladles
- **Exercise an teamwork:** Optimization of economics in refractories
- **Exercise:** The digitalized steel ladle
- **Steel plant and refractory tour at ArcelorMittal Duisburg**

## REGISTRATION FEE

EUR 990,00\* registration fee VAT-free plus  
EUR 282,00 conference package (total EUR 1.272,00\*)  
EUR 1190,00 registration fee VAT-free plus  
EUR 282,00 conference package (total EUR 1.472,00)

\* for employees of member companies and individual members of the Steel Institute VDEh. Scientific staff of universities gets a 50 % off

+++ as part of the VDEh youth development sponsorship young engineers (up to 30 years) of member companies receive a 50 % discount +++

The conference package includes food and beverages during the seminar (incl. 19 % VAT). The catering included in the seminar fee starts with a welcome coffee on 16 June and ends with lunch on 18 June. This fee does not include the hotel room.

A free withdrawal from the seminar is possible until two weeks prior to the start. Then, 25 % of the seminar fee must be paid. The total registration amount will be charged for no show or cancellation from the first day of the event. The participant also has to bear the cancellation costs of the seminar hotel.

# PROGRAMME

## Tuesday, 16 June 2026

- 2.00 p.m. **Introduction** – Peter Schmieding / Andus Buhr  
**Trends in clean steel and steel ladle lining**  
 Andus Buhr, Almatiss  
 Trends in secondary metallurgy and steel ladle lining / Dream ladle lining
- 3.30 p.m. **Demands on refractories for secondary metallurgy**  
 Helmut Lachmund, former Dillinger  
 Increased tapping temperature / Longer residence time of steel in the ladle / Metal-slag reactions / Recarburisation by refractory material / Reaction steel and refractory materials
- 4.30 p.m. Coffee break
- 5.00 p.m. **Flexibility of refractory lining for varying operating conditions**  
 Leandro Schöttler, Swiss Steel Group  
 Balanced lining for various tapping weights and a wide range of steel grades / Ladles for operation in LF, RH and VOD / Dolomite lining / Low carbon stainless steels
- 6.00 p.m. **Improvements of steel ladle lining**  
 Jens Pischke, Salzgitter Flachstahl  
 Ladle logistics and secondary metallurgy / Lining concept, wear lining and safety lining / Precast components / Refractory maintenance / Refractory improvements  
 => afterwards: Common dinner

## Wednesday, 17 June 2026

- 8.30 a.m. **Improvement of lining for a 400 mt steel ladle**  
 Kai Werner, thyssenkrupp Steel Europe  
 Increase of tapping weight / Simplified lining concept
- 9.30 a.m. **Neutral steel ladle lining for flat steel production**  
 Marcel Peekel, Tata Steel IJmuiden  
 Overview of current steel ladle construction, ladle operation and impact of refractories performance / Recent developments
- 10:30 a.m. Coffee break
- 11.00 a.m. **Ladle lining for various steel grades – How to challenge your refractory supplier**  
 Felix Baas, ArcelorMittal Duisburg

- 12:00 p.m. **Exercise**  
**The digitalised steel ladle**  
 Rinus Siebring  
 Opportunities / Cooperation between steel plants and suppliers / Threats / Current status / Tools
- 1.00 p.m. Lunch
- 2.00 p.m. Bus departure to  
**ArcelorMittal Duisburg**
- 3.00 p.m. **Steel works and refractory tour**
- 7.00 p.m. Arrival back in Düsseldorf  
 => afterwards: Common Dinner

## Thursday, 18 June 2026

- 8.30 a.m. **Monolithic ladle lining in a 3-converter shop**  
 Jukka Vatanen, SSAB Finland  
 Refractory materials for steel ladle / Installation of monolithic-brick combined lining / Reduction of specific refractory consumption / Ladle injuries
- 9.30 a.m. **Exercise**  
**Optimization of ECONOMICS IN REFRACTORIES, Part I**  
 Rinus Siebring, Tata Steel Europe, IJmuiden  
 Presentation of a model on refractory optimization
- 10.30 a.m. Coffee break
- 11.00 a.m. **Exercise part II: Team work**  
 Exercises and team work on refractory optimization
- 12.30 p.m. Lunch
- 1.15 p.m. **Purging plugs in steel ladles – important factors for reliable performance**  
 Stephan Clasen, PAHAGE  
 Interaction refractory material and quality, purging plug's geometry and gas channel system
- 2.15 p.m. **Summary**  
 Andus Buhr
- 3.00 p.m. **End of seminar**

**SPEAKERS** Felix Baas, ArcelorMittal Duisburg/Ruhrort ▪ Dr. rer. nat. Andreas Buhr, Almatiss GmbH, Frankfurt ▪ Dr.-Ing. Stephan Clasen, PAHAGE Feuerfeste Erzeugnisse GmbH, Viersen ▪ Dr.-Ing. Helmut Lachmund, Dillingen ▪ Marcel Peekel, Tata Steel Europe IJmuiden ▪ Jens Pischke, Salzgitter Flachstahl, Salzgitter ▪ Leandro Schöttler, Swiss Steel Group, Deutsche Edelstahlwerke Siegen/Hagen ▪ Rinus Siebring, Tata Steel Europe, IJmuiden ▪ Jukka Vatanen, SSAB Europe Oy, Raahе ▪ Kai Werner, thyssenkrupp Steel Europe, Duisburg ▪

Organisation: Peter Schmieding, Steel Academy, Steel Institute VDEh, Duesseldorf