At a glance

Given the technical and technological differences involved, our seminars are offered, in German and English, in two separate categories:

- **Foundry Plant Equipment** and
- **Thermoprocessing Plant Equipment.**

Program
The proven training concept is supplemented by another element: the virtual reality safety training.

Attendance fee
The seminar fee is EUR 349.-- plus VAT per person, irrespective of the number of modules booked.

Included in the attendance fee is the cost of meals during the seminar, seminar documentation, the attendance certificate as well as a dinner.

Location
OTTO JUNKER GmbH
Jaegerhausstr. 22
52152 Simmerath
Germany

More up-to-date information and dates ...
will be announced at **www.otto-junker.com**.

For further queries please contact Mrs. Mertgens, phone number: **+49 2473 601-525**.

OTTOJUNKER
ACADEMY PROGRESS THROUGH KNOWLEDGE

Navigation: 50.635731, 6.271928 ⓘ Attention: speed traps

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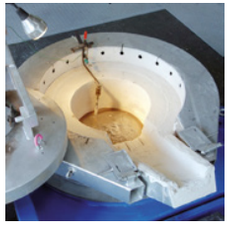
PRACTICAL SEMINARS



... OF OTTO JUNKER ACADEMY

Progress through knowledge

Practical seminars

Employee skill standards for the planning, operation and maintenance of industrial furnaces in metallurgy have changed rapidly in recent years as processes grew in complexity and the design and execution of equipment became more challenging.

For personnel to stay abreast of today‘s demands the OTTO JUNKER Academy was established at the end of 2014 with the aim of conveying knowledge and experice in planning and upgrading as well as in the operation, maintenance and repair of industrial furnace equipment.

The seminars focus on cost effectiveness, reliability, energy efficiency and safety.

Using scale models, demonstration equipment, virtual reality simulations and trial facilities, application-focused instruction is administered, ‘by practicians for practicians‘.

The OTTO JUNKER Academy is aimed at serving managers and staff of the respective manufacturing, maintenance and investment planning departments.

It is intended to provide both advanced training to proven employees and basic training to newly hired staff.

Seminar Foundry plant equipment

Fundamentals of induction melting
- Physical fundamentals, Coreless furnace and Channel-type furnace
- Operating mode, application area and main components

State of the art
- Furnace mechanics and hydraulics, Crucible ejection, Vacuum induction furnace
- Water recooling system including heat recovery, Charge make-up and charging

Frequency converter technology
- including IGBT and power supply systems

Innovative applications and crucible monitoring systems
- Low-loss coil
- Optical Coil Protection Plus (OCP+)

Refractories for coreless furnace and channel-type furnace

Maintenance and operation
- Energy-efficiency melting and charging
- Risks with liquid melt
- Repair training thyristor / IGBT

Safety training using virtual reality
- Efficient work with an melting processor
- Earth fault monitoring and crucible damage
- Troubleshooting the induction furnace
- Remote service / remote maintenance via VPN access

Seminar Thermoprocessing Equipment

Fundamentals of heat transfer
- Convection
- Heat radiation
- Practical formulas

Flow and heat transfer
- Typical set-up
- Fan as a flow machine
- Choice of nozzle system

Heat treatment methods
- Terms and definitions
- Metal-physical processes during heat treatment

Product-related equipment technology
- Rolling mill
- Extrusion works

Cost and energy efficiency
- Fuel heating vs. Electric heating
- Methods for increasing the efficiency of fuel heating
- Efficiency
- Operating cost
- R&D Projects

Natural gas burners
- Basics
- Test rig demonstration of a practical example