

## Services

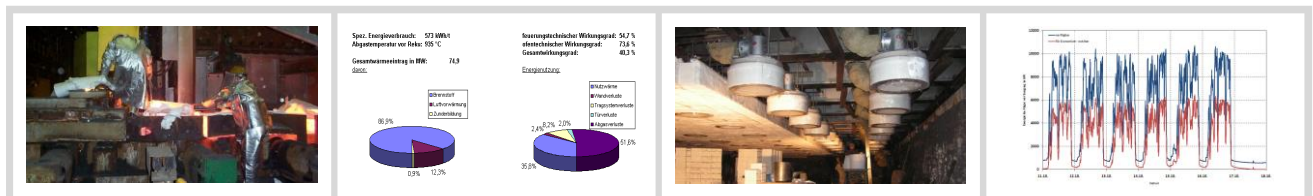
GIWEP has – for more than 30 years now – comprehensive know-how in the area of thermal-metallurgical plants.

This know-how will be provided to our customers by offering varied services. The spectrum ranges from typical engineering services like thermo-technical calculations and plant dimensioning, measurements and plant examinations, which will be performed with our own measuring equipment on-site, up to planning and execution of plant modernization in collaboration with cooperation partners.

We have great experience in performing temperature measurement tests on furnace plants. Here we use measuring systems which will be adjusted for each specific plant. During a "data logger test" the whole measuring system will be transported together with heating stock through the furnace. In case this is not possible due to furnace or heating stock restrictions, a "test with trailing elements" will be performed alternatively. For that measuring thermocouples will be chosen such long as to ensure that they will pass through entire furnace chamber to a data logger outside the furnace.

Plant operators and plant manufacturers rely on our expertise and objectivity when implementing performance tests and certifications on thermal-metallurgical plants after modernization measures or implementation of a new furnace.

As a neutral party we will also perform measurements for certification of furnaces.



### Engineering

- Consulting and project planning
- Thermo-technical calculations
- Dimensioning of thermal-metallurgical plants
- Studies on thermo-technical problems
- Trainings in thermal technology, plant operation and safety

### Measurements and Examinations on Plants

- Measurements and examinations on thermal-metallurgical plants:
  - Temperature measurement tests using data logger or trailing elements
  - Atmospheric measurements
  - Process control and inspection of measurement and control systems
  - Performance tests, approvals and certifications
- Data analysis by mathematical and statistical methods
- Evaluation of current plant status regarding:
  - Thermo-technical problems
  - Used technology
  - Consumption and productivity
- Recommendations for improvements and extensions of examined plant

### Plant Modernization

- Analysis and evaluation of actual state of plant to be modernized
- Planning and design
- Compilation of requirement specifications
- Project support
- Execution together with partner companies
- Maintenance and spare part service

Walking beam furnaces  
Walking hearth furnaces  
Pusher type furnaces  
Rotary hearth furnaces  
Roller hearth furnaces  
Double walking beam furnaces  
Floater furnaces  
Bell type furnaces  
Chamber furnaces  
Bogie hearth furnaces  
Induction furnaces