

REFERENCES

SCOPE	CLIENT
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ADDITIONAL REFERENCES:

www.steinmueller.com/en/reference-list.html

RELY ON GOOD EXPERIENCES

You can count on us as experts in the areas of

- **Combustion Systems**
- **Flue Gas Cleaning**
- **Steam Generation**

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ABOUT US

Founded in 2003 in Gummersbach, Steinmüller Engineering has rapidly grown to become a major international player for engineering and consulting services.

Focusing on the power industry and thermal processes the company is well positioned to manage complex and challenging new builds or modernization projects.

We are a company of international engineers, with broad experience and passion for technology and we love new challenges. This wealth of experience is benefitting our customer and adds value to their processes.

COMPANY HISTORY

1874

FOUNDATION OF L. & C. STEINMÜLLER (LCS) "WATER TUBE BOILER COMPANY" BY LEBRECHT AND CARL STEINMÜLLER.

Development and supply of combustion systems, steam generators and flue gas treatment plants for over 125 years.

2003

FOUNDATION OF NEW COMPANY STEINMÜLLER ENGINEERING GMBH, by a group of experienced former LCS engineers and managers.

2014

INTEGRATION OF STEINMÜLLER ENGINEERING GMBH into the Japanese IHI Group of companies.

Today

CONTINUED EXPANSION OF THE SERVICES AND PRODUCT RANGE with more than 500 projects realized worldwide with over 280 customers in more than 40 countries.

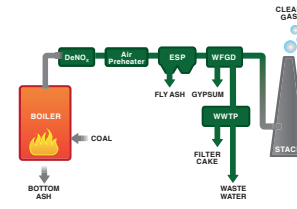
EXPERT KNOWLEDGE IS FUNDAMENTAL TO EVERYTHING WE DO

Our technologies are constantly evolving, enabling our customers to take on future global challenges.

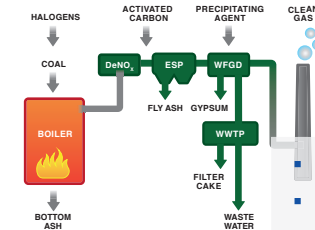
MERCURY MONITORING AND MASS BALANCING



- PORTABLE CONTINUOUS MONITORING
- CLOSING OF MERCURY BALANCE
- MERCURY REMOVAL CONCEPTS

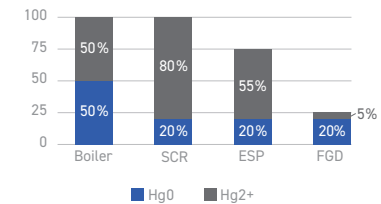


MERCURY REMOVAL



- REMOVAL EFFICIENCY INCREASE
- BEST AVAILABLE TECHNOLOGY

Hg PARTITIONING IN FLUE GAS DOWNSTREAM OF (TOTAL Hg AFTER BOILER = 100%)



APPLICATION

Fields of Application

- Speciation and quantification of elemental, oxidized and particulate mercury
- Testing of permanent emission monitoring systems (single probes and long term)
- Plausibility checks
- Testing of influencing parameters (fast response time)

Benefits

- Portable modular design
- Quick and easy transport
- Integrated calibration

SCOPE OF SUPPLY

- Analyzer rental
- Measurement planning & execution
- Remote monitoring possible
- Consulting
 - Closing of mercury balance
 - Plant specific mercury removal concepts (choice of removal technologies)
- Engineering assistance, e.g. feasibility studies

TECHNICAL DATA

- High sensitivity: 0.05 µg/m³
- Fast response: t(90) = 180 s
- Calibration certified (U.S. National Institute of Standards and Technology)

FOCUSSED FUEL TYPES

- Bituminous Coal
- Lignite
- Waste
- Sludge
- Oil

APPLICATION

Fields of application

- Thermal power plants
- Waste incineration plants

Scope of application

- Mercury balance assessments with own on-line mercury analyzers
- Integrated engineering solutions

Benefits

- Increase of operational flexibility
- Reduction of mercury emissions
- Proven and robust technologies

AVAILABLE TECHNOLOGIES

- Adsorption with activated carbon
- Duct injection
- Low pressure moving bed (patent pending)
- Separation in the flue gas desulphurization process
 - Tray (red. of mercury re-emission)
- Adding precipitating or complexing agent

SCOPE OF SUPPLY

- Mercury measurements and speciation
- Consultancy and optimization concepts
- Process engineering
- Engineering, supply and installation of components



Fields of Application

Combustion Systems

Steam Generation

Flue Gas Cleaning



Core Competences

Process & Mechanical Design incl. CFD

Sophisticated solutions with expert tools

Consultancy based on own know-how



Fields of Activities

Concept, Basic & Detail Engineering

Supply of Core Components

Project Management & Technical Support