

Troubleshooting Process Engineering

Problem solution during operation

- Feasibility study for the integration of desulphurization processes into the existing by-product plant – Coke plant in United Kingdom
- Technical evaluation of several coke plants including coke oven batteries and the by-product plant – Coke plant in China
- Inspection and maintenance supervision of a caustic soda scrubber at a hydrogen production plant – Coke plant in India
- Study to evaluate the impact of a shutdown of coke oven batteries on the by-product plant with technical solutions for its modification– Coke plant in Canada
- Delivery of coke oven door seals in accordance with the patented DMT-system – Coke plant in Germany



Scrubber columns

Our Services – Coke Making Technology

If your projects require process oriented planning and also safe execution, then DMT is a capable partner whose coke making technology division covers the whole spectrum of process engineering with innovative solutions.

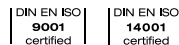
- Refurbishment of coke plants – Development and implementation of projects during operation of the coke oven gas cleaning treatment
- Plant extension and modernization – Planning and turn-key supply of coke oven gas cleaning equipment
- Development of innovative products and process engineering solutions – Innovative PROven® system for single-chamber pressure control, new furnace door gasket and door cleaning system, optimized processes for gas cleaning, dust emission reduction at the quenching tower, increase of the efficiency by process optimization
- Consulting services – Layout optimization of equipment or components for the efficient utilization of (the resource) coal, concepts to solve operational problems

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Coke Making Technology

Next generation technologies





By-product plant at Coke Plant Bhilai, India

Design of a complete by-product plant for 55.000 Nm³/h coke oven gas cleaning consisting of:

- Tar separation
- Primary gas cooler
- Electrostatic tar precipitator
- Gas exhauster
- H₂S and NH₃ scrubbing system (with second line for 175.000 Nm³/h)
- Naphthalene scrubber
- Gravel filter
- Claus plant
- Stripper and de-acidifier
- Wash oil regeneration plant

Contract includes:

- Basic engineering of the complete by-product plant
- Delivery of key components for the processes
- Support of erection supervision and commissioning

This project is being accomplished in partnership with McNally Bharat Engineering Co. Ltd., Kolkata, India.

Completion: ongoing

Project duration: ongoing

View to an Indian by-product plant



Upgrading of a distillation plant in New-castle, South Africa

Feasibility study for upgrading an operating by-product plant due increased production followed by the basic engineering of a new distillation plant

Contract includes:

- Feasibility study for upgrading an existing by-product plant
- Basic and detail engineering of the distillation plant
- Commissioning of the system
- Monitoring of operations after commissioning

This project is being accomplished in partnership with Process Plant Technology (Pty) Ltd., South Africa.

Completion: March 2014 (exp.)

Project duration: 20 months

Distillation columns



Modification of a Claus Plant operation into closed system at Coke Plant Dunaferri, Hungary

Engineering design regarding H₂S/NH₃ recovery and conversion of a Claus plant operation into a closed system

The tail gas of the Claus plant was previously discharged by a stack. The target of the project was to connect the tail gas line to the COG line in front of the primary gas coolers in order to reduce emissions to the atmosphere.

Contract includes:

- Basic and detail engineering
- Delivery of key components
- Supervision and commissioning

Completion: August 2013

Project duration: 12 months

Claus Plant

