

## Troubleshooting Process Engineering

### Problem solution during operation

- Feasibility study for the integration of a desulphurization process into the existing by-product plant – Coke plant in United Kingdom
- Feasibility study for upgrading an existing by-product plant due increased production followed by a basic engineering of a new distillation plant – Coke plant in South Africa
- Study to optimize a by-product plant – Coke plant in The Netherlands
- Basic Engineering for a SRU (sulfur recovery unit) – Natural gas works in Syria
- Feasibility study regarding the application of the saturator technology for NH<sub>3</sub>-removal from process gas – Chemical works in Germany



Claus plant

## 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.

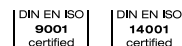
- Refurbishment of coke plants – Development and implementation of projects during operation of the coke oven gas cleaning treatment
- Plant extension and modernization – Planning and turn-key supply of coke oven gas cleaning equipment
- Development of innovative products and process engineering solutions – 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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TÜV NORD GROUP



## Coke Making Technology

Next generation technologies





## By-product plant at Coke Plant Cilegon, Indonesia

Design of the following units of a complete by-product plant for 88.000 Nm<sup>3</sup>/h coke oven gas:

- Ammonia and hydrogen sulfide scrubbing system
- BTX scrubber
- Claus plant
- Stripper and de-acidifier
- Wash oil regeneration plant

### Contract includes:

- Basic engineering of the mentioned units in the by-product plant
- Delivery of key components for the processes
- Erection supervision and commissioning

This project is being accomplished in partnership with Paul Wurth Italia S.p.A., Genua, Italy.

Completion: February 2014  
Project duration: 35 months



## Caustic soda scrubber at Coke Plant Jamshedpur, India

Design of a caustic soda scrubber for sulfur removal from coke oven gas

The caustic soda scrubber removes H<sub>2</sub>S from coke oven gas which is subsequently used in a PSA hydrogen production plant.

### Contract includes:

- Basic and detail engineering of a caustic soda scrubber
- Delivery of key components for the process
- Erection supervision and commissioning

This project is being accomplished in partnership with Schmack Carbotech GmbH, Essen, Germany.

Completion: September 2013  
Project duration: 20 months



## Implementation of a desulphurization unit at Coke Plant Dunkerque, France

Design and refurbishment of a desulphurization unit to be integrated into an existing coke plant

### Contract includes:

- Basic and detail engineering of the desulphurization unit consisting of:
  - Ammonia scrubber modification
  - Hydrogensulfide scrubber
  - Stripper and deacidifier

Completion: February 2014  
Project duration: 9 months

View to an Indonesian by-product plant



Scrubber Area and Gas Exhauster Unit



Scrubber and Distillation Columns

