Volatiles

Online-Measurement of Coal

OXEA[®] Online X-ray Elemental Analyzer (patented)

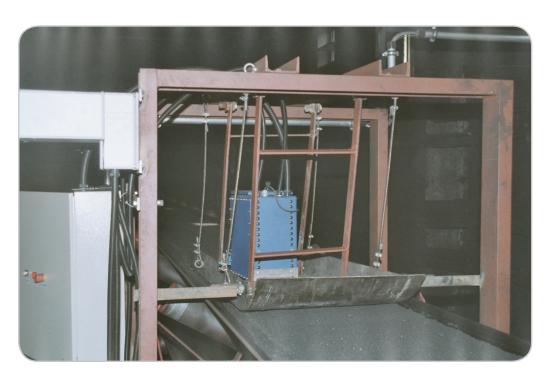


without Nuclear Sources

main belt installation - sensor on a sled

to control the coking oven

- coal ca. 300 t/h
- 7 days / 24 hours per day
- belt speed 1,8 m/s
- evaluation PC in a control room
- connection to PLC



Advantages for the process

- the desired temperature of the coke can be reached with a low deviation
- to high temperature waste of energy
- to low temperature bad coke quality
- impurities (e.g. ore) can be recognized
- the filling degree of the coke oven can be determined

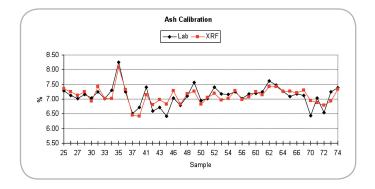
Experience

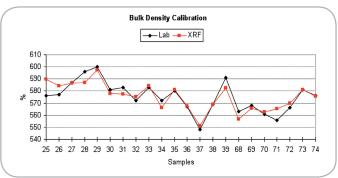
- high availabitily
- easy calibration
- low maintenance costs
- hits all expectations

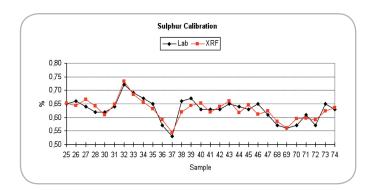
Amortisation of the OXEA Analyzer in very short time

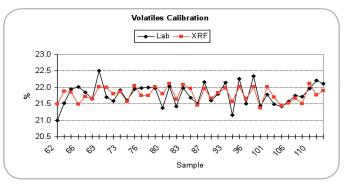
Results of the calibration

measuring: ash, sulphur, volatiles, bulk density, moisture









Coking coalResults of the calibration

	correlation coeff.	standard dev.
ash	0,826	0,192 wt%
volatiles	0,950	0,475 wt%
sulphur	0,899	5,424 wt%
bulk density	0,866	0,019 kg/m³

Now you can increase the throughput of your coking process while savings energy and improving your coke quality with the OXEA 3000 from Indutech. This instrument uses XRF (X-Ray Fluoresence) to measure the volatiles in the coal on-line as the coal is conveyed to the oven.

The analyzer charecterizes the volatiles using computer modeling and yields repeatable and reliable results so you will not over cook the coke which wastes energy or under cook the coke which in both cases results in a decrease in quality.

Since you now know the precise amount of volatiles you can increase the throughput while generating a better quality coke product. Some customers are reporting energy savings of \$150,000 per month and a great improvement in product quality and consistency as a result of this instrument.

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