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1 *Combustion of waste.*

2 *Plant-specific equipment of the combustion center.*

COMBUSTION CENTER

TECHNICAL SCALE INCINERATION TESTS FOR ALTERNATIVE FUELS

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A lot of production processes cause residues, residuals and further waste materials. The use of these materials as alternative fuels can lead to the development of large energetic and economic potentials. However, the thermal utilization of non-woody fuels requires an adapted plant technology due to the partly difficult combustion characteristics.

With our comprehensively equipped combustion center we can offer practical scale incineration tests for a broad spectrum of alternative fuels. According to requirements the test series comprise the fuel characterization, a required preparation, the examination of the combustion and emission behavior, the selection of suited firing plants through to the assessment of possible disposals of residual products.

Keywords

- Biogenous fuels
- Residues and waste materials
- Thermal utilization
- Fuel treatment
- Firing technique
- Combustion and emission behavior
- Residue utilization

Target Groups

- Waste management industry
- Sewage treatment plants
- Food industry
- Manufacturing industry
- Firing systems construction
- Energy supplier
- Public utility companies / municipalities
- Consultancy firms
- Engineering offices



1 Fuel pellets.

2 Central plant control and data collection system.

3 Test facility fluidized fuel incinerator.

Technological equipment

Firing technology

- Grate stoker furnaces (power range 100 - 440 kW)
- Furnace with ridge grate (30 kW)
- Fluidized fuel incinerator (100 kW)
- Gas solid combination boiler
- Rotary kiln
- Pyrolysis reactor

Fuel treatment

- Pelletizing
- Admixture of additives

Filter technology

- Ceramic filter with sorbent
- Electrostatic precipitator
- Activated carbon filter
- Packed bed hot gas filter

Analytics

- Continuous online flue gas analysis system
- Fuel and residue laboratory
- Gravimetric dust measurement
- Cascade impactors

Software

- Central plant control technology and data collection system
- Evaluation of combustion- and emission-relevant parameters
- Comprehensive test-based fuel database

Our service

Adequate test campaigns with optional scope of services

- Orientating tests
- Standard combustion tests
- Long-term tests

Examinations in the whole package or for individual process steps

- Analysis of the feedstock
- Fuel treatment
- Combustion behavior
- Optimization and selection of suited firing plant technology
- Examinations on the corrosion behavior of specific components
- Emission behavior
- Assessment of the emission limits
- Emissions of fine dust and nano particles
- Derivation of necessary flue gas cleaning devices
- Analysis of the combustion residues
- Possibilities of residue utilization
- Test evaluation and recommendations

Your benefit

- A competent partner for research and development
- Efficient and customized solutions for the energetic utilization of biogenous residues and waste materials
- A long experience in the use of alternative fuels
- Risk-free and realistic testing of feedstocks
- Experience from practical combustion tests
- Comprehensive assessment of the possibilities of use for alternative fuels
- Competitive advantages due to optimized use of fuel
- Economic fulfillment of own demand for heat and electricity
- Avoidance of cost-intensive disposal of waste material from production processes