

Gas, Heat and Power Generation from Biomass



Decentralised Energy Systems

Our Portfolio

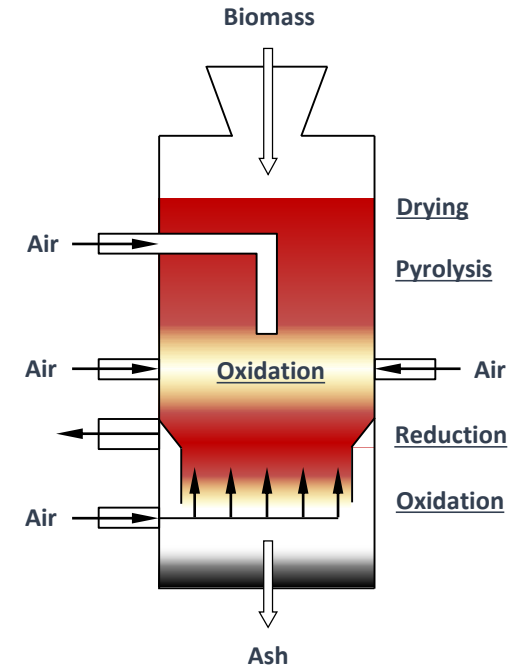
COMPACT POWER PLANTS (CPP's)	HOT GAS for Industrial Applications	CLEAN GAS for Decentralised Power Plants
200-250 kW _{el}	Fossil and renewable feedstock 600 kW_{th}	Fossil and renewable feedstock 250 kW_{el}
400 - 500 kW _{el}	- 50 MW_{th}	- 12 MW_{el}

Our Services

Consulting & Empowering	
Design & Customisation	
Sales, Shipment & Implementation	
Maintenance & Services	
Research and Development & Engineering	

Technologic Features

A.H.T. applies the unique twin-fire gas generation principle with two gasification zones by combining up- and downdraft gasification. Thus, A.H.T. stands out of the typical single-fire gas generators.



The consequence is an almost complete gasification of the feedstock and highest efficiencies:

- ✓ Up to 30 % overall electrical efficiency and engine efficiency alone up to 40 %
- ✓ Up to 90 % thermal and electrical efficiency

Reference plant
Kesennuma



Our Heritage

Twin-fire gas generation developed by KHD

Reactivation of the original technology after abandoned by KHD

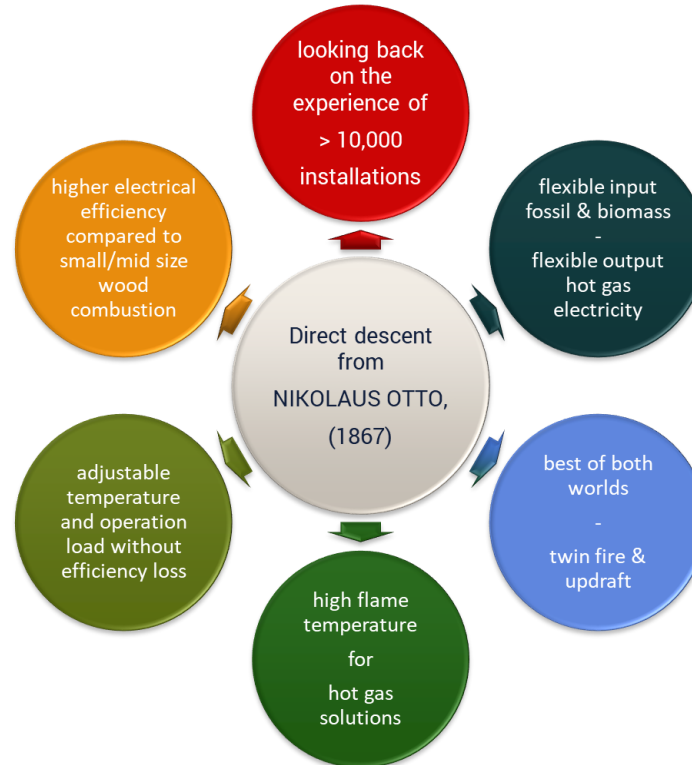
Translating the original twin-fire technology to the modern requirements

Standard Setup

A typical standard array of an A.H.T. Biomass Gas-, heat and Power Plant consists of

- Twin-fire gasifier
- Cyclone and wet gas scrubbing system
- Water treatment system
- CHP

Unique Selling Proposition

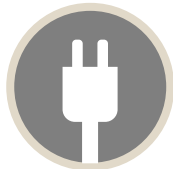


The wet gas scrubbing system with an ESP – alternatively a dry scrubbing system – ensures an exceptionally pure gas for the combustion in a CHP. Harmful substances remain in the wash water and be easily removed. In combination with the twin-fire gasification, a broad range of feedstock can be applied, such as

- Wood chips
- Treated wood and saw dust (briquetted)
- Oil palm trunks, empty fruit bunches, straw
- Bamboo, and many more

High-moisture containing feedstock, such as manure, sewage sludge or digestates, can be carbonised and used in form of a hydro char.

Applications & Products



Electricity



Heat / Cold



Hydrogen



Fertiliser

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MADE IN GERMANY