**Gas, Heat and Power Generation from Biomass**

## Our Portfolio

<table>
<thead>
<tr>
<th>COMPACT POWER PLANTS (CPP’s)</th>
<th>HOT GAS for Industrial Applications</th>
<th>CLEAN GAS for Decentralised Power Plants</th>
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</thead>
<tbody>
<tr>
<td>200-250 kW&lt;sub&gt;el&lt;/sub&gt;</td>
<td>Fossil and renewable feedstock 600 kW&lt;sub&gt;th&lt;/sub&gt; - 50 MW&lt;sub&gt;th&lt;/sub&gt;</td>
<td>Fossil and renewable feedstock 250 kW&lt;sub&gt;el&lt;/sub&gt; - 12 MW&lt;sub&gt;el&lt;/sub&gt;</td>
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<tr>
<td>400 - 500 kW&lt;sub&gt;el&lt;/sub&gt;</td>
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## 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
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

Unique Selling Proposition

looking back on the experience of > 10,000 installations

higher electrical efficiency compared to small/mid size wood combustion

adjustable temperature and operation load without efficiency loss

high flame temperature for hot gas solutions

flexible input fossil & biomass - flexible output hot gas electricity

best of both worlds - twin fire & updraft

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.

A.T.H. Syngas Technology N.V.
Diepenbroich 15
51491 Overath / Germany
phone +49 (0)2206 95190-0
fax +49 (0)2206 85190-11
email info@aht-syngas.com
web www.aht-energy.com