Biomass and Flue Gas Condensation

LAB is a subsidiary of

www.lab.fr
**Biomass**: an unlimited sustainable energy for heat production and clean environment

- Straw
- Wood chips
- Bagasse
- Wood pellets

and also:
- Local wood
- Contaminated wood

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**Biomass References**
*With Flue Gas Condensation:*

<table>
<thead>
<tr>
<th>Biomass Source</th>
<th>Condensation Capacity</th>
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<tbody>
<tr>
<td>ØRSTED / Herning - DK</td>
<td>41.5 MW</td>
</tr>
<tr>
<td>HELSINGØR - DK</td>
<td>15 MW</td>
</tr>
<tr>
<td>HOFOR / Copenhagen - DK</td>
<td>123 MW</td>
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<tr>
<td>AVA / Aarhus - DK</td>
<td>12 MW</td>
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</tbody>
</table>
LAB concept for biomass flue gas treatment: SecoLAB® dry system + Flue Gas Condensation

- Acid gases and heavy metals removal on patented SecoLAB®
- Packing Scrubber / Plates or Tubes Condensers
- High efficiency condensation units by combination with combustion air humidification
- Condensate Water Treatment till feed water boiler production
For over sixty years LAB has been designing and building **turnkey Flue Gas Cleaning (FGC)** covering three main activities: **Waste**, **Power / Biomass** and **Marine Industry**.

Offering state-of-the-art turnkey solutions, LAB has joined the Environment Division of **CNIM** in 2001. **200** highly skilled specialists & engineers work all over the world, and LAB is **ISO** and **OHSAS** quality certified.

LAB devotes considerable efforts in **R&D** offering complete portfolio of advanced **Flue Gas Cleaning (FGC)** systems from dry to semi-dry and wet technologies including catalytic systems and condensation units, thanks to numerous patents.

LAB concept for **biomass flue gas treatment** is a combination of **SecoLAB® dry** process for acid gases and heavy metals removal and **Flue Gas Condensation** for **heat recovery** transferred to District Heating. Energy efficiency of the plant can be furthermore increased by combination of flue gas condensation and **combustion air humidification**.

As renewable energy, biomass increasingly becomes the new generation of sustainable energy with major **positive impact on the environment**. LAB has experienced all types of biomass, from local and contaminated wood, woodchips to straw and bagasse.

**Well-known and international companies** have selected LAB to install performing flue gas treatment including high level of heat recovery.