

LIGNOCAL

Pellet boiler



A Thermax Group Company



LIGNOCAL

Pellet boiler



The Lignocal is a modern solid fuel boiler to produce hot water or steam. With the Lignocal pellet boiler you not only help the environment by reducing the "Carbon Footprint" with CO₂ neutral combustion from industrial wood pellets. You also have the advantage of using a natural, local, prize-stable fuel and reduced dependency on fossil fuels.

Operation

The Lignocal boiler is the main part of a complete and fully automated heating or steam system, largely free of attendance.

While it is primarily designed for the combustion of industrial wood pellets, an option of firing wood chips is also available. Combustion systems for other solid fuels are also available on request.

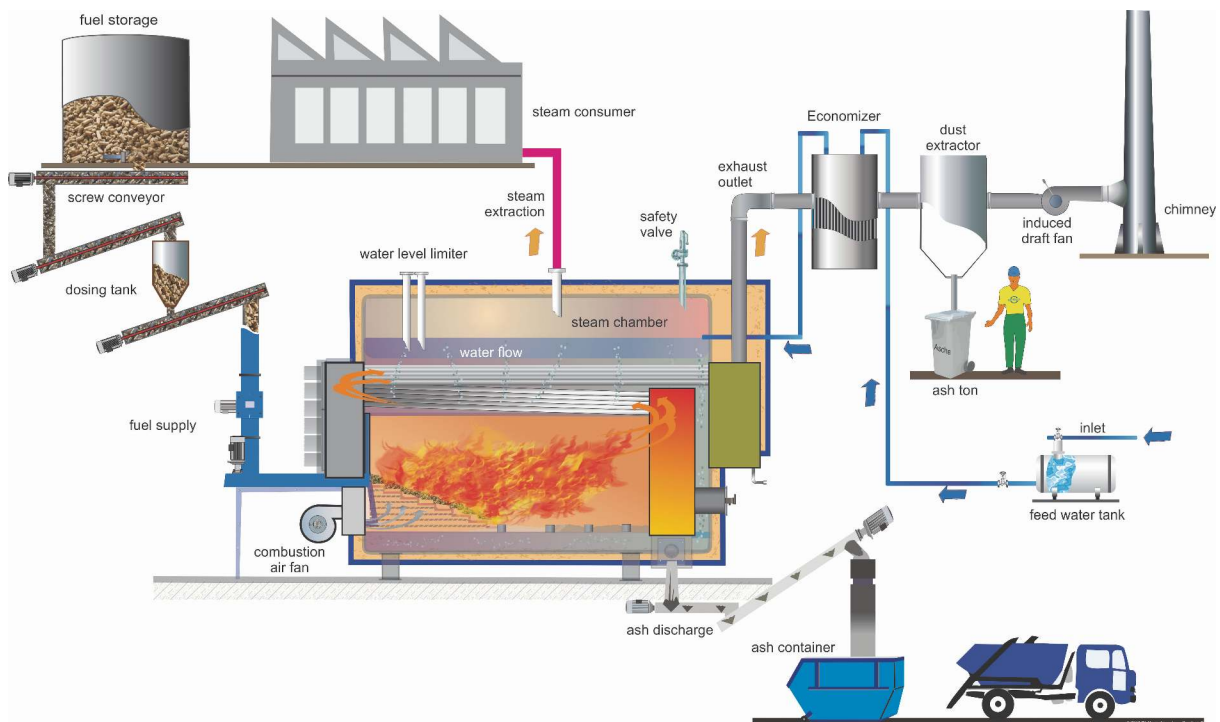
The pellets are delivered directly into the fuel storage bunker / hopper and fed forward with the help of screw conveyors. A subsequent rotatory air lock valve serves both as a fuel feeder as well as a safety mechanism to prevent back fire by isolating the fuel and the combustion section. The following stoker screw feeds the pellets steadily on the step grate.

The regulated supply of primary and secondary air assures the complete combustion of the fuel with low emission. In order to guarantee a constant power output, all Lignocal solid fuel boilers are equipped with a unique pneumatic soot blowing system for cleaning the smoke tubes.

While the ash residue from the combustion chamber is conveyed directly to the ash container with the help of ash screws, the particle content in the exhaust gas is cleaned by an online dust collector. The cleaned flue gas is then disposed to the chimney through an induced draft fan. The entire system thereby ensures a clean exhaust and a dust free boiler house.

In case of steam boilers an economizer is provided as a heat recovery equipment for preheating the feed water.

A typical Lignocal pellet boiler facility





Power control

With its inbuilt controls and automation, the reaction time of a Lignocal for any change in output demand is nearly similar to an oil / gas fired boiler. An effective and infinitely variable output modulation is hence possible in the range of 45% to 100% capacity.

Coupled with this an online oxygen analyzer and controller ensures steady combustion and optimum efficiency even at partial load conditions.



The low-emission combustion

The fine control and regulation in the supply of primary and secondary combustion air ensures optimum combustion, controlled flame geometry and a regulated gas flow path thereby ensuring better heat transfer and reduced emissions.

Controls

As a standard feature, the Lignocal is equipped with a programmable logic controller (SPS) for the whole boiler system. It guarantees the automatic operation and controls the complete system by following the individual requirements of the operator. A remote performance monitoring system is also available as an option.

The advantages of Lignocal at a glance:

- Faster response to changing load demands regulation of power output due to water cooled combustion chamber.
- A completely water cooled combustion chamber and shell type design eliminates the need for refractory lining and gas recirculation. This not only ensures optimum heat transfer and saving in operating expenses but also reduces regular maintenance costs.
- Optimum excess air coefficients maintained at constant levels by means of O₂ regulation.
- High efficiency of more than 91%.
- The combustion chamber temperature remains below the ash fusion point.
- Effective cleaning of the heating surface with an automated soot blowing system.
- Compact dimensions
- Integrated step grate
- Highly quality and reliable components increased availability of the whole system.
- Easy to operate and maintain.

Product Offering

Type	Feature
HW	● Production of hot water up to 160°C
	● Max. operating pressure up to 16 bar
	● Thermal capacity from 0,8 to 6 MW
HD	● Production of saturated steam
	● Max. operating pressure up to 16 bar
	● Steam capacity from 2 to 8 t/h

Customized solutions available on request.



»Sustainable Energy Solutions«

Omnical Kessel- und Apparatebau GmbH
Hauptstrasse 156
35716 Dietzhöhlztal, GERMANY
Telefon: +49 (0) 27 74 / 81-0
Telefax: +49 (0) 27 74 / 81-292
Internet: www.omnical.de

SERVICEHOTLINE 24 / 7

Telefon: +49 (0) 27 74 / 81-247
Email: service@omnical.de

VERTRIEBSLEITUNG / HEAD OF SALES

Telefon: +49 (0) 27 74 / 81-300
Email: sales@omnical.de

VERTRIEBSBÜRO NORD / WEST

Am Wiesendamm 22a
32549 Bad Oeynhausen
Telefon: +49 (0) 5731 / 300 34 99
Email: vb-nordwest@omnical.de

VERTRIEBSBÜRO SÜD / OST

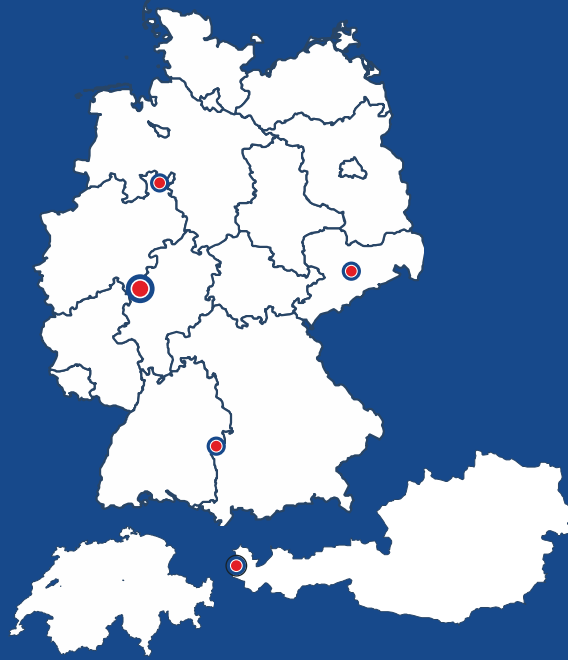
Am Wasserwerk 5
09557 Flöha
Telefon: +49 (0) 3726 / 78 90 65
Email: vb-suedost@omnical.de

VERTRIEBSBÜRO SÜD

Böttgerstraße 6
89231 Neu-Ulm
Telefon: +49 (0) 731 / 725 68 54
Email: vb-sued@omnical.de

VERTRIEBSBÜRO ÖSTERREICH / SCHWEIZ

Staubererweg 42
A-6800 Feldkirch
Telefon: +43 (0) 5522 / 365 60
Email: vb-sued@omnical.de



Our Global Network:



- Omnical
 - Dietzhöhlztal, Germany
- Danstoker
 - Herning, Denmark
- Thermax
 - Pune, India
 - Detroit, USA
 - São Paulo, Brazil
 - Milton Keynes, UK
 - Jebel Ali, UAE
 - Nairobi, Kenya
 - Moscow, Russia
 - Hongkong, China
 - Zhejiang, China
 - Kuala Lumpur, Malaysia

For further information please contact sales@omnical.de

A Thermax Group Company

