Combustion furnaces

For household, hazardous, industrial, clinical and contaminated waste

The heart of every plant is of course the combustion chamber, with its grate and combustion system philosophy.

For this, all parameters of the combustible material are taken into account, as well as the question of sustainability in dealing with the waste.

Our combustion furnace has a two-chamber ceiling loading system consisting of a manual or optionally automatic chamber opening, together with a driven slide system to separate the combustion chamber.

Two burner systems are used to heat up the system and to support the firing at low calorific values of the waste. One burner system for the main combustion chamber and one burner system for the afterburner chamber. This is divided into two chambers.

Depending on the setting, the combustion chamber temperature is 850 - 950 °C in the main combustion chamber and 950 - 1150 °C in the afterburner chambers. The firing temperatures are automatically controlled according to local specifications. An emergency system (pressure and temperature dependent) is available.

The ventilation of the main chamber is on the front side and is adapted to the patented combustion grate system.

In the past, we have used old-fashioned technology that reliably fulfilled its tasks, but reached its limits in the area of wear and tear and also in maintenance. We took a closer look at these problems and created a new type of combustion grate that is easy to maintain and favourable in its manufacture and replacement, as combustion gratings are wearing parts.

The afterburner chambers are ventilated on the side. Ventilation is provided by one or more combustion air fans, the control of which is regulated by corresponding oxygen measurements to ensure sufficient oxygen enrichment and thus complete combustion.

The system contains 2 sight glasses into the combustion chamber as well as numerous connections and connection possibilities for necessary and additional measuring instruments.

The ash is removed manually via 3 large ash removal doors or optionally via an automatic wet ash removal system.

There is no uniform solution, but only adaptable technical solutions in general. Each plant is therefore designed to meet the specific requirements and of course the highest environmental standards. We have a wide range of solutions available for this purpose.

Mid-sized incineration plants as an example of a sustainable investment

Key figures

- Up to 400 kg/hour capacity.
- Suitable for all types of waste, such as clinical waste and contaminated materials.
- Automatic control systems.
- Patented grate systems.
- Manual feeding via top loading device (closed chamber system).
- Large side chamber doors, also usable for revision access.
- Inspection opening at the front for easy replacement of the combustion grate.
Optional system components

- Automatic feeding possible.
- Automatic ash removal possible.
- Liquid injection possible.
- Patented Air/Air cooler for an easy and quick change of the tube bundles.
- Wide range of adaptation options for filter systems and flue gas cleaning possible.
- Heat recovery and energy generation possible.

Everything you need to know about other components

Of course a system could also includes other components, such as;

- Pipelines,
- Emergency and primary chimneys,
- Additive systems,
- Filter systems (bag filter or ceramic filter systems),
- Suction and fresh air blower,
- Sensors and control systems,
- Conveyor belts,
- Exhaust gas monitoring system,
- and other plant components,

partly included, partly optional, depending on the individual configuration of a plant.

However, these are to be planned individually, if necessary also locally available and therefore not part of a general presentation.

To protect the environment and to avoid unnecessary transports we would like to point out our license option.

Let's talk about it.

Thank you.