Patented Air/Air cooler for an easy and quick change of the tube bundles.

For household, hazardous, industrial, clinical and contaminated waste combustion systems

In the past, we have also for the flue gas coolers and heat exchangers used old-fashioned technology that reliably fulfilled its tasks, but reached its limits in the area of wear and tear and also in maintenance. In the same order as we did with the combustion grate system we took a closer look at these problems and created a new type of flue gas cooler that is very easy to maintain.

But easy to maintain is not the only target what we had focused on.

The new design is long resistant against heat, abration and acids which is naturally dependent on selected materials.

Since the cooling circuit is shielded from the flue gas and the heat and thus energy transfer to the cooling air is due to the engineering enormous, it is nearly inevitable that this cooling air can be used further and thus the efficiency of a plant can be increased.

Of course also the efficiency of an older, existing plant can be increased.

The design of the new cooler and the way it is implemented is both logical and consequent. The cooler design is an air/air cooler. In the design, the flue gas and cooling air side are considered as independent systems.

One system, the flue gas side, must be resistant to heat, abrasion and corrosion and the other, the clean cooling air side, to sometimes enormous temperatures, depending on the design of the plant. We have also constructively implemented the thermal, mechanical problems that arise on the cooling air side.

Of course, the flue gas pipes are still exposed to a great deal of stress and their durability can be increased by using special steels, but they are still nothing more than wearing parts from a classical point of view.

If you take this problem into account, then you inevitably have to create a simple maintenance option, which we have implemented in our cooler.

The entire rear chamber part can be easily removed and the tube bundles can be replaced just as easily on their sliding frame. This significantly reduces downtime and keeps maintenance costs to a minimum.

The temperature ranges for the flue gas side are, depending on the design of the upstream plant, between 850 - 1200 °C and the cooling air side between 300 - 650 °C.

Deviations are of course possible depending on the individual design of each plant.

Advantages of the new and patented cooler design

• Easy to maintain.
• Long resistant against heat.
• Long resistant against acids.
• Long resistant against abration.
• Heat recovery via clean cooling air possible.
• No material attack of the secondary air cooling circuit by aggressive media.
• Long service life.
Please note that each system requires an individual configuration.
Therefore, examples cannot be used for planning purposes, but only serve as rough information.
We always calculate your system individually according to your specifications and requirements.

Sample of a suitable Air/Air cooler with W2E possibility for a 200 kg/h system

Sample of a suitable Air/Air cooler with W2E possibility for a 400 kg/h system

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.