EISENMANN

THERMAL OXIDATION TO HEAT RECOVERY FROM EXHAUST AIR

TO SYSTEMS ARE THE PREFERRED SYSTEMS FOR USE IN APPLICATION AREAS WHERE IT IS POSSIBLE AND USEFUL TO RECIRCULATE THE EXHAUST HEAT INTO THE PROCESS.

The TO is capable of processing exhaust air streams with a high VOC load. The exhaust air preheater, which is used to preheat the exhaust air before it enters the combustion chamber, is an integral part of the TO. The combustion chamber is equipped with the Eisenmann BLUEMAX burner. Its use makes it possible to operate the combustion chamber in compliance with the strict CO specifications. At the same time, it is guaranteed that the TOC and NOx emissions are significantly below their regulatory limit values.

Due to the modular design of the Eisenmann TO, a wide range of specifications for volume flows and VOC loads can be mapped. This offers decisive advantages when using silicon-containing coating substances. Structured pipes, which significantly improve heat recovery, are used for special tasks.

The additional fuel required for the operation of the TO depends on the pollutant content of the exhaust air and the desired heat output.

The well proven design is regarded as very robust and highly available. There are more than 1,300 systems in operation, proof of the long experience and continuous development of this system.

The following systems are available for heat recovery

- Generating of warm water, hot water or steam
- Air heating
- Transfer to other heat carriers such as thermal oil
- ORC process

Various TO designs

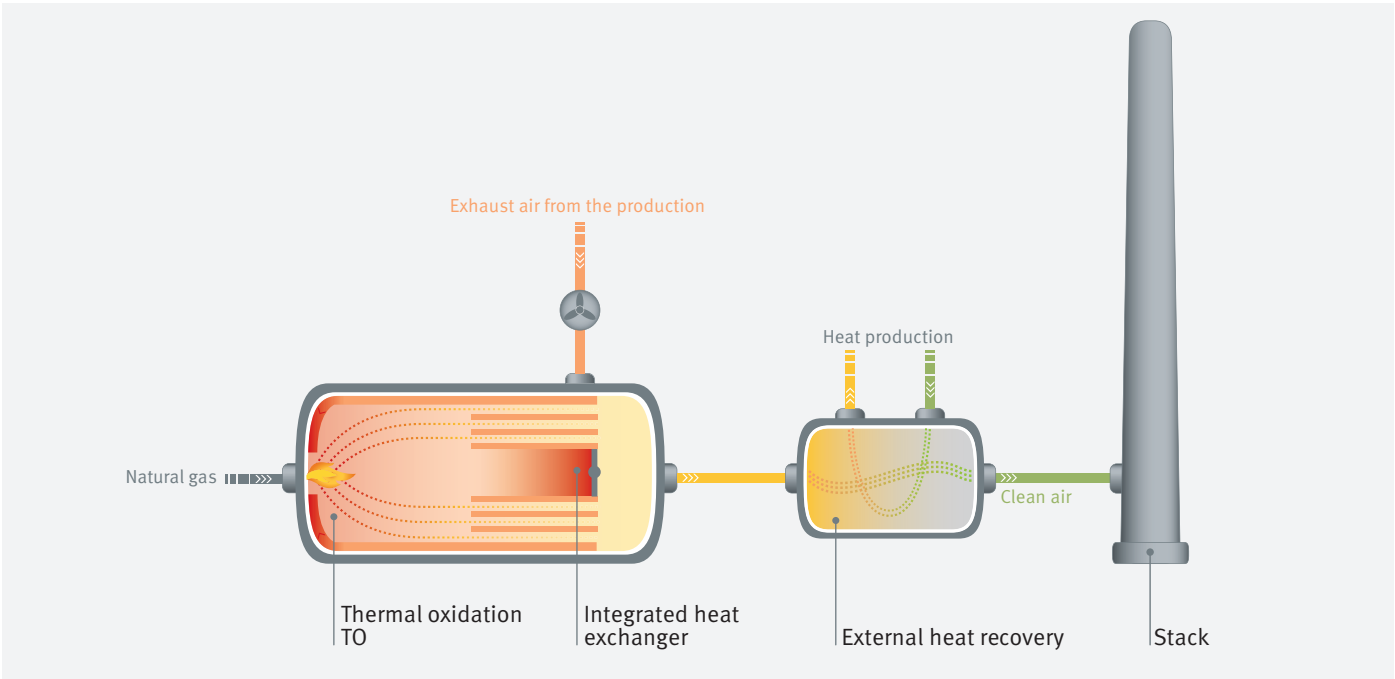
- Horizontal TO: Combustion chamber and heat exchanger are aligned horizontally. All system components are located on one level
- Vertical TO: If floor space is limited, an alternative is provided by the vertically aligned TO system

Advantages at a glance

- Robust construction, durability and reliability
- Cost-effective adaptation to customer requirements through modular system
- Reliable compliance with the emission limit values through BLUEMAX burner technology
- Excellent accessibility and cleaning facilities when exhaust air streams contain dust

THERMAL OXIDATION TO HEAT RECOVERY FROM EXHAUST AIR

Technical data of the TO							
Type	1,040	1,430	1,640	1,910	2,250	2,860	3,150
Exhaust air flow Nm^3/h	1,000 - 3,000	3,000 - 6,000	6,000 - 9,000	9,000 - 14,000	14,000 - 22,000	22,000 - 36,000	36,000 - 50,000
Max. VOC-concentration	20/25% LEL						



Functional diagram of a TO.

EISENMANN

www.eisenmann.com

Eisenmann Anlagenbau GmbH & Co. KG, Tübinger Str. 81, 71032 Böblingen, Germany, Phone: +49 7031 78-0, Fax: +49 7031 78-1000

ET-D-029a-de-0416