EISENMANN
Environmental Technology

EXHAUST AIR TREATMENT BY COMBUSTION CHAMBER
DISPOSAL OF ORGANIC CONTAMINATED EXHAUST GASES AND LIQUIDS

EISENMANN COMBUSTION CHAMBERS ARE SPECIFICALLY USED WHEN EXHAUST GASES WITH COMPLEX TECHNICAL REQUIREMENTS MUST BE TREATED EFFICIENTLY AND SAFELY.

Major challenges for exhaust air treatment systems arise in particular from organic contaminated exhaust gases and liquids with inorganic contamination, halogenated hydrocarbons, toxic compounds, and explosive composition. These can include increased abrasion, deposits and corrosion, therefore they place particular demands on materials and safety.

Especially in such application cases, a combustion chamber is the perfect solution. In addition to compliance with the required limit values, the focus is on efficiency, reliability and durability.

Efficiency is achieved by utilising the heating value contained in the exhaust gas, as well as by implementing process engineering measures, optimised components and a heat recovery tailored to customer requirements.

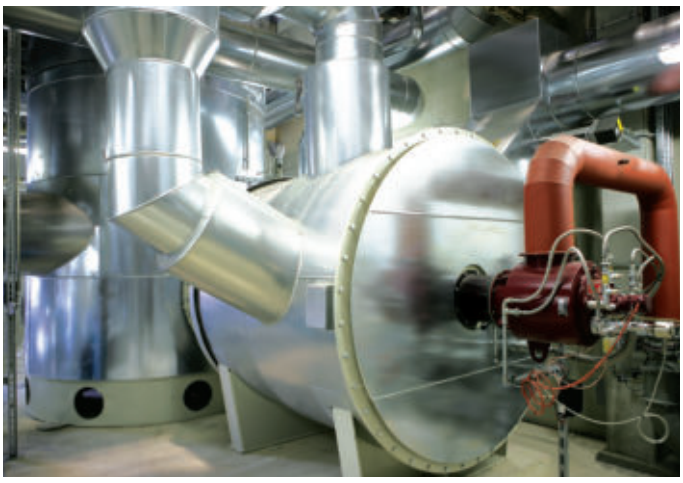
The following systems for heat recovery are available
- Steam/hot water generation
- Flue gas recirculation
- Process gas/air preheating
- Transfer to other heat carriers such as thermal oil
- Integration of an ORC plant

Reliability and durability are guaranteed through the targeted selection of materials and the flue gas treatment, which is perfectly tailored to the flue gas being generated.

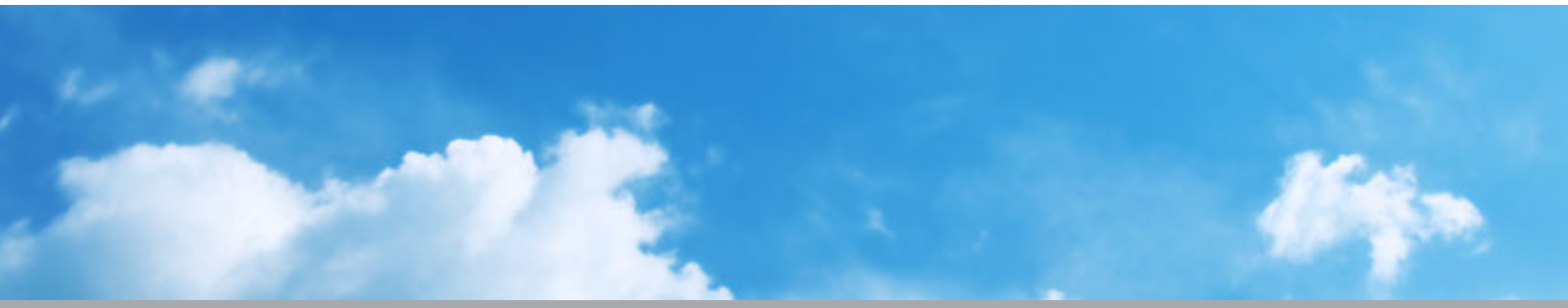
In the process, high turbulences – generated by the special design of the burner, the coordinated geometry of the combustion chamber and the tangential exhaust gas intake – ensure that the pollutants are completely oxidised. If, for example, dust, HCl, SO_x, or NO_x are generated, downstream use of exhaust filters, washing columns or catalytic converters is required.

Combustion chambers can be used for thermal performance from 1,000 kW and unrestricted pollutant load. This includes the treatment of exhaust gases with an explosive composition of categories zone 0, zone 1 and zone 2.

Target industries
- Chemical industry
- Petrochemical industry
- Pharmaceutical industry
- Tobacco manufacturing
- Carbon fibre production



Vertical combustion chamber.



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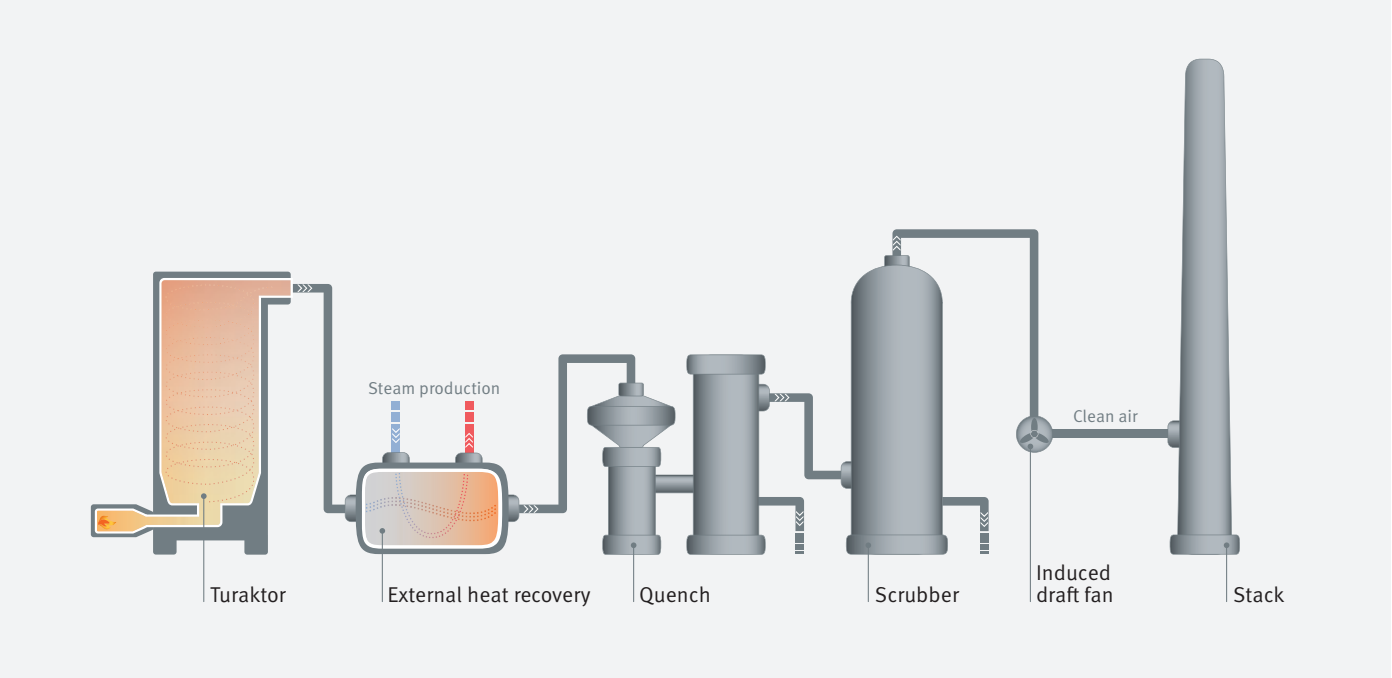

Combustion chamber with heat recovery and flue gas cleaning.

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