



Thermal Exhaust Air Cleaning Units



Thermal oxidisers with recuperative exhaust air pre-heating for the cleaning of industrial exhaust air with high concentrations of organic pollutants. The unit types INTEGRA and FLEXA feature a highly efficient internal heat usage. In combination with downstream heat recovery systems, they permit an economical unit operation with low additional fuel requirements.

Areas of application

- Printing, coating, laminating and impregnating processes

Catalytic incinerators for the cleaning of industrial exhaust air at low combustion chamber temperature. The catalysts are individually matched to the requirements. With the use of highly efficient plate heat exchangers, autothermic unit operation is possible even at low solvent concentrations.

Areas of application

- Flexographic or gravure printing
- Chemical and pharmaceutical industry
- All kinds of painting and coating plants

Regenerative thermal oxidisers for the cleaning of industrial exhaust air using ceramic heat storage materials. The proven types from the REGETAR series guarantee economical unit operation independent of the pollutant concentration, even for very large exhaust air flows. Due to the use of a regenerative ceramic heat store, autothermic operation is possible even at low solvent concentrations.

Areas of application

- Industries that are working with solvents

Concentrator units combined with thermal oxidisers, regenerative thermal oxidisers or catalytic incinerators represent the most economical technology for cleaning large exhaust volume flows with low solvent load. In this process, a continuously rotating rotor made of hydrophobic zeolite adsorbs the organic pollutants. Afterwards, the adsorbed pollutants are desorbed with the help of a small hot air stream and are fed into a thermal exhaust air cleaning unit.

Areas of application

- Painting and semiconductor industry

Features

- INTEGRA series for volume flows of 2,000 to 7,500 Nm³/h
- FLEXA series for volume flows of 9,000 to 55,000 Nm³/h
- Efficiency of internal heat usage up to 76 %
- Heat recovery systems for air, water, thermal oil, steam and for the heating of absorption chillers



Recuperative thermal oxidiser

Features

- Individual unit design
- For volume flows of 1,000 to 50,000 Nm³/h
- Use of proven catalysts for temperatures of 200 °C upwards
- Efficiency of the internal heat usage up to 85 %



Catalytic incinerator

Features

- Units with 2, 3, or more beds
- For volume flows up to 200,000 Nm³/h
- Efficiency of the internal heat usage up to 97 %



Regenerative thermal oxidiser

Features

- For volume flows upwards of 20,000 Nm³/h
- For low solvent concentrations < 1g/Nm³
- For low exhaust air temperatures < 40°C
- Concentration ratio up to 1:18



Concentrator unit with regenerative thermal oxidiser

caverion GmbH
Business unit KRANTZ Clean Air Solutions
 Uersfeld 24 | 52072 Aachen | Germany

Tel +49 241. 441-559
 Fax +49 241. 441-670

ernst.luthardt@caverion.com
 www.krantz-abluftreinigung.com

**Conception.
 Systems.
 Solutions.**