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Process Combustion

Process Combustion Oxidisers

Process Combustion Ltd. has extensive experience in the design, manufacture and supply of gaseous and liquid stream thermal oxidisers, which safely and effectively destroy volatile organic compounds, process odours and other waste types from a diverse range of industrial processes throughout the world.

System Design

Process Combustion have a complete range of thermal oxidation technology to enable the selection of the correct system to suit the application.

This means that every system we design, build and install exactly matches the clients requirements.

Technologies we offer include:

- Direct Fired Thermal Oxidisers
- Recuperative Thermal Oxidisers
- Regenerative Thermal Oxidisers (RTO)
- Catalytic Thermal Oxidisers

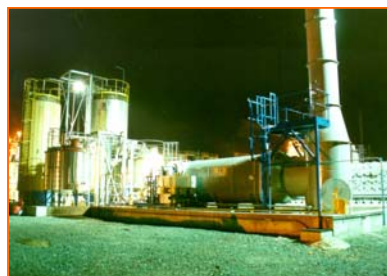


Capabilities

Since our formation in 1985, we have gained a reputation for technical innovation and reliability, together with excellent quality and service.

Our in-house design expertise includes process, mechanical, structural, electrical, controls and material selection. All our equipment can be custom designed to suit customers specific process requirements, and our experience of clients processes ensures we supply and install the most efficient system available, whilst meeting stringent emission limits, and a seamless integration of our equipment into the customers process.

Our project management experience ensures projects are completed to meet the technical and documentation requirements, and are on time and within budget through excellent interfaces with clients, our suppliers and sub-contractors.



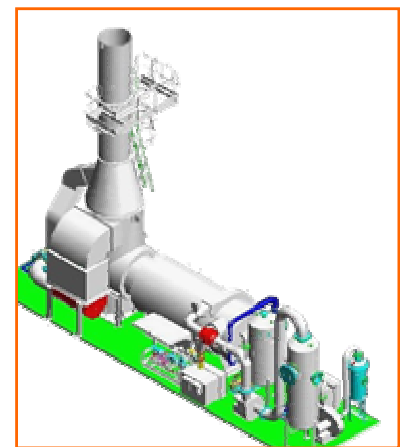
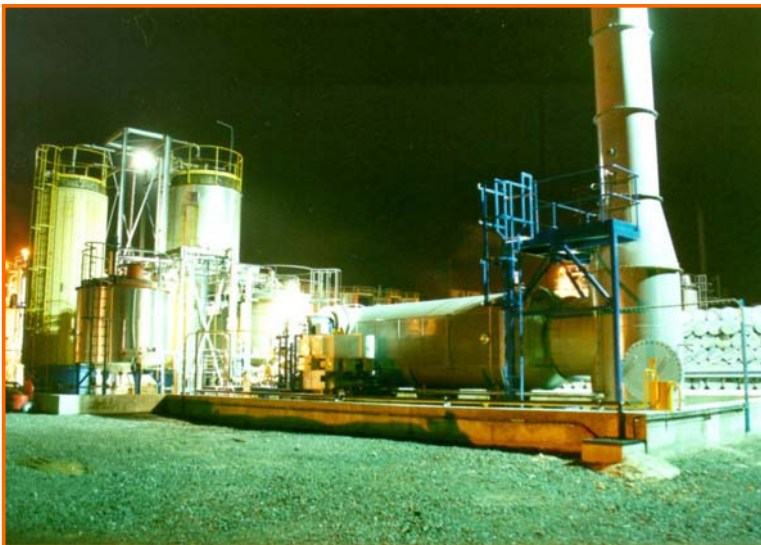
For more information on our range of Thermal and Catalytic Oxidisers please contact one of our Engineers at Process Combustion.

Direct Fired Oxidisers

Process Combustion's Direct Fired Thermal Oxidisers offer extremely high destruction efficiency of high concentration waste gas and waste liquid streams. The waste streams, in some cases can be injected through the burner system and be used as a fuel. Additional energy saving equipment such as waste heat boilers or secondary heat recovery systems can be added to recover heat back to your process.

Advantages

- Can handle high concentration waste gas and liquid streams.
- Extremely high destruction efficiencies can be achieved.
- Can react quickly to high peak concentrations.
- Can be used to provide constant heat recovery back to your process.



Application

Direct Fired Thermal Oxidisers are most effective when there is a high calorific value waste gas or liquid stream that needs to be treated. Process Combustion can design and build these units to meet the most stringent requirements of the Solvent Emissions Directive (SED) and the Waste Incineration Directive (WID).

Design

Our approach is specific to each enquiry, so that every application is considered on its own merits. This means that every system we design, build and install exactly matches your requirements.

- The residence time and operating temperature are selected to give the optimum destruction efficiency.
- The unit will function safely and reliably through your complete range of operating scenarios.
- The complete system will be designed to match your site specifications and requirements.

For more information on Direct Fired Thermal Oxidisers or other Air Pollution Control Equipment please contact one of our Engineers at Process Combustion.

Recuperative Oxidisers

Process Combustion's range of Recuperative oxidisers are designed with a high destruction efficiency capability combined with integral heat recovery systems to reduce operational cost. Systems are supplied with a primary heat exchanger to heat the incoming air stream. Additional secondary heat recovery systems can be installed to heat hot oil, water or heat air required for dryers, ovens or space heating.

Advantages

- High destruction efficiency capability > 99.5%.
- Upto 70% primary heat recovery available.
- Can handle low to high solvent concentrations.
- Secondary heat recovery can be provided to match your process needs.



Applications

Process Combustion's Recuperative Thermal Oxidisers can handle varying solvent concentrations. The high destruction efficiency capability means that they can achieve extremely low outlet emissions. Primary heat recovery enables the system to be energy efficient at low inlet concentration levels. The exhaust temperature of these units is ideal to heat hot oil or provide hot air for ovens or dryers. These systems can be integrated to recover the maximum amount of heat back to your process.

Design

Our approach is specific to each enquiry, so that every application is considered on its own merits. This means that every system we design, build and install exactly matches your requirements.



- Primary and secondary heat recovery are selected to produce the most cost effective energy efficient system to suit your process.
- The residence time and operating temperature are selected to give the optimum destruction efficiency.
- The unit will function safely and reliably through your complete range of operating scenarios.
- The complete system will be designed to match your site specifications and requirements.

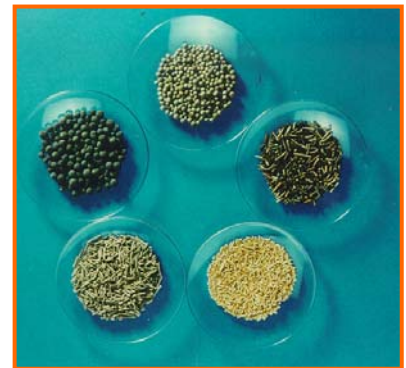
For more information on Recuperative Thermal Oxidisers or other Pollution Control Equipment Process Combustion can offer please contact one of our Engineers.

Catalytic Oxidisers

Process Combustion's Catalytic oxidisers operate at significantly lower temperatures than equivalent thermal systems. With the ever increasing cost of fuel, Catalytic Oxidation systems offer a cost effective energy efficient solution to your air pollution needs.

Advantages

- Lower fuel costs compared to equivalent thermal systems.
- Low capital costs due to reduced reaction chamber size.
- Compact and light, reduces space and civil requirements.
- Reduced start up time and flexible in operation.
- Completely skid mounted for minimum installation time and cost.



Catalyst Selection

Catalytic systems require the process gas stream to be free from particulate, catalyst poisons and tarry materials that could mask the catalyst. Catalyst technology has significantly improved and Process Combustion Ltd. Engineers can select from a wide range of catalyst types to maximise the removal efficiency and the life expectancy of the catalyst.

Design

Our approach is specific to each enquiry, so that every application is considered on its own merits. This means that every system we design, build and install exactly matches your requirements.

- Catalyst will be selected to suit the specific VOC's in your process exhaust stream and ensure compliance with your emission requirements.
- The heat exchanger will be designed to give optimum heat recovery to minimise fuel costs.
- The unit will function safely and reliably through your complete range of operating scenarios.
- The complete system will be designed to match your site specifications and requirements.

For more information on Catalytic Oxidisers or other Air Pollution Control Equipment please contact one of our Engineers at Process Combustion.