Process Combustion™ Ltd

www.process-combustion.co.uk

Custom Process Heaters

For Industrial Process Heating Applications

System Design and Build
Project Management
Installation, Commissioning, Training, Service and Support

+44 (0)1423 879944

Process Combustion Ltd

Process Heaters

Process Combustion Ltd provides custom designed process heaters for a variety of industrial processes that demand a reliable, more efficient and closely controlled heating system.

Applications:

Process Combustion Ltd have successfully handled many forms of process streams including: regeneration gas, hot air, steam, nitrogen, process gases, hot water, water/glycol, sea water and thermal fluid. We work closely with our customers to understand their heating requirements. We provide a full range of service from feasibility studies through detailed design, fabrication, installation, commissioning and service.

Designs:

Process Combustion Ltd designs process heaters to meet a variety of unique characteristics of many applications, such as:

- Process heating duty
- Process fluid stream
- Fuel type
- Capital and operating costs
- Project and site specific design codes and specifications
- Operating cycle
- Control requirements
- Efficiency
- Emissions

Industries:

We have supplied process heaters for various applications into industries which include:

- Oil and Gas
- Food
- Chemical
- Nuclear
- Tobacco
- Coating and finishing
- Petrochemical
- Energy
- Pharmaceutical
- Glass
- Food
- LNG

Variety of Design Options and Applications

PROCESS HEATER TYPES

Process Combustion Ltd can supply a range of custom designed process heaters, such as direct and indirect-fired process heaters, combustion air pre-heaters or hot flue gas recirculation. These process heaters can be skid mounted.

DIRECT-FIRED PROCESS HEATERS

In many applications, the process stream can be directly heated without the need for a heat exchanger. This can be done by mounting the burner directly in the air stream, where it makes use of the oxygen in the process stream, or by firing a burner into the process stream and introducing additional combustion air through the back of the burner.

Advantages of the PCL Design:

- Higher thermal efficiencies can be achieved by direct-fired heating.
- Lower operating and capital costs.
- Complete package including gas skids and controls.
- Custom designed to suit process.

INDIRECT-FIRED PROCESS HEATERS

Many applications require the heating medium and combustion products to be kept separate. **PROCESS COMBUSTION™**'s indirect-fired units are cabin style convective heaters where the medium to be heated is passed through a heat exchanger.

Advantages of the PCL Design:

- Convective heat transfer.
- Consistent, predictable heat transfer.
- Improved reliability of heat exchanger tubes.
- Enhanced efficiency with optional combustion air pre-heat by exhaust gas.

Hot Flue Gas Recirculation

Hot flue gas recirculation can be added to help improve efficiency and help reduce NOx. Additional fresh air is introduced through the burner and the equivalent mass of combustion products is exhausted into the atmosphere. The remaining products of combustion are re-circulated back into the combustion chamber.

Custom Process Heaters

For a Design & Estimate, Contact
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mail@process-combustion.co.uk

INVESTOR IN PEOPLE

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Installation Code and Annual Inspections: All installation and service of PROCESS COMBUSTION™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Process Combustion Ltd and conform to all requirements set forth in the Process Combustion Ltd manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Process Combustion Ltd recommends that a qualified contractor conduct, at a minimum, annual inspections of your PROCESS COMBUSTION™ equipment and perform service where necessary, using only replacement parts sold and supplied by Process Combustion Ltd.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

The performance of the equipment described in this document will vary depending on the particular design and application.

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