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Innovative Thermal Solutions

Applicationbrief

Eclipse Product: Winnox Burners

Submitted by: Tim Sampey – Industrial Burner Systems

Application: 10 Zone ELPO Oven

Description: 10-Zone ELOP oven, zones 1 through 3 are radiant zones, 4 and 5 are convection. Zones 6 through 10 are Exothermics air-to-air plate heat exchangers which receive their heat from two catalytic incinerators.
The first five zones had Eclipse Mark Four burners in operation in the heaters. Each of these burners is installed using a straight flame spreader. The heater fan wheel is in close proximity to the burner.

New Equipment:
In April of 2001, Giffin International received a contract to make the necessary changes to the ELPO oven due to the complexity of the original operating design. On this oven there are numerous automatic controls with several operating conditions. On a Sunday evening, some of the automatic controls failed causing an explosion which resulted in significant damage and five days of lost production.

Existing
A portion of Giffin's contract was to replace the Mark Four burners with the latest General Motors specified burner which is the Eclipse RatioMatic-Fixed Air (RM-FA). Individuals in our office and Giffin persuaded General Motors to allow us to test the Eclipse Winnox burner in the application for the following reasons:
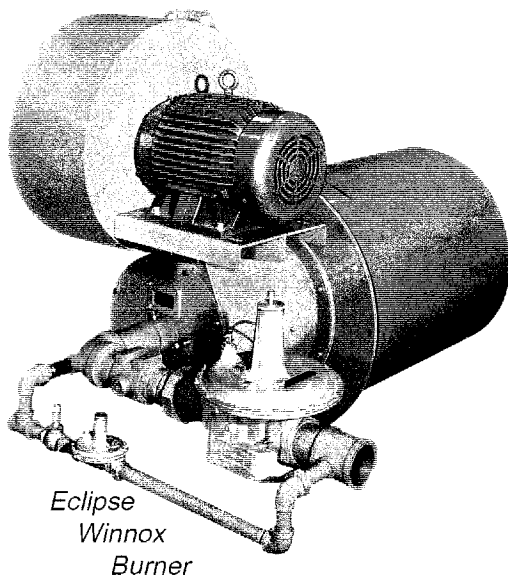
- Low emissions
- Short flame length
- There would be no internal heater box modifications. The external work consisted of installing a new mounting flange.

Result:
General Motors did agree and there are five Winnox burners in operation at the General Motors Pontiac East Truck Assembly Plant. General Motors's facilities engineers are pleased with their new Winnox burners.

Point of Intrest:
Winnox burners are now installed and in operation at General Motors, Chrysler Windsor Assembly Plant and Toyota is now installing a Winnox burner and will be in operation in the near future. Ford Motor Company has been shown the Winnox but does not have any in operation at this time, but getting very close.

*Eclipse
Winnox
Burner*