

ECLIPSE OEAS

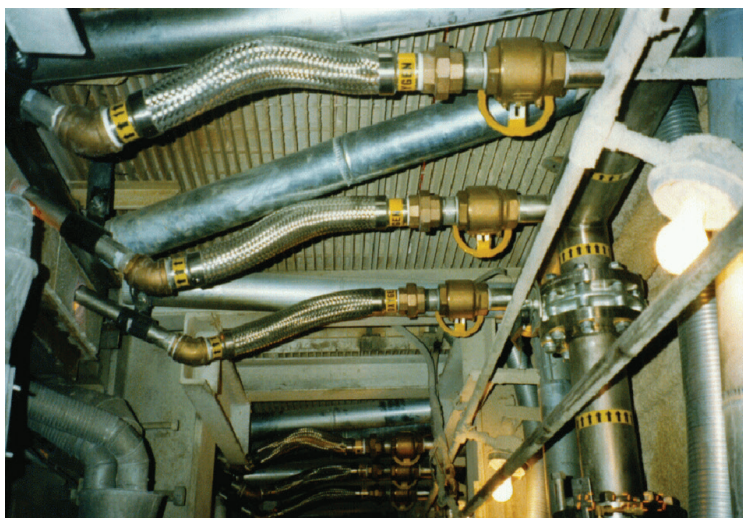
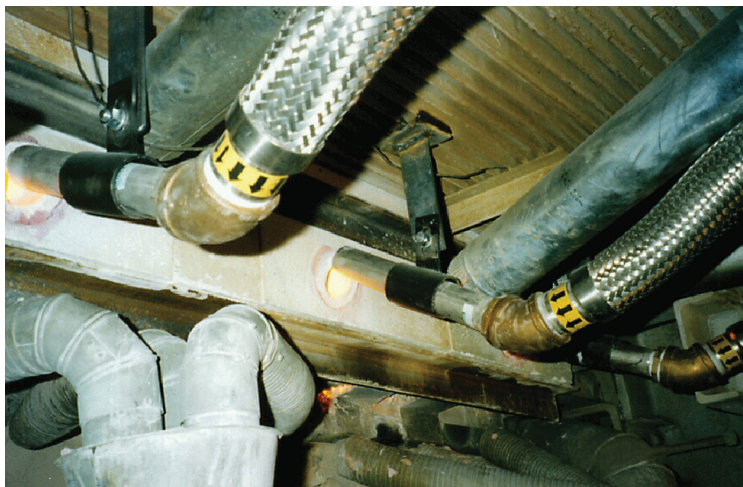
OXYGEN ENRICHED AIR STAGING

Best available technology for NO_x reduction in glass furnaces.

Glass companies around the world are under pressure to reduce NO_x emissions in their operations. Oxygen Enriched Air Staging (OEAS) from Eclipse provides a technology to dramatically decrease NO_x production in air-fired regenerative glass furnaces in all segments of the glass industry. It can be installed in new or existing end port and side port regenerative furnaces, without making significant changes to the operation and without increasing energy costs. NO_x reduction levels of 30-75% can be achieved, depending on initial conditions, with a limit of about 1.0 kg NO_x per ton of glass for container glass furnaces.

The Staging Process

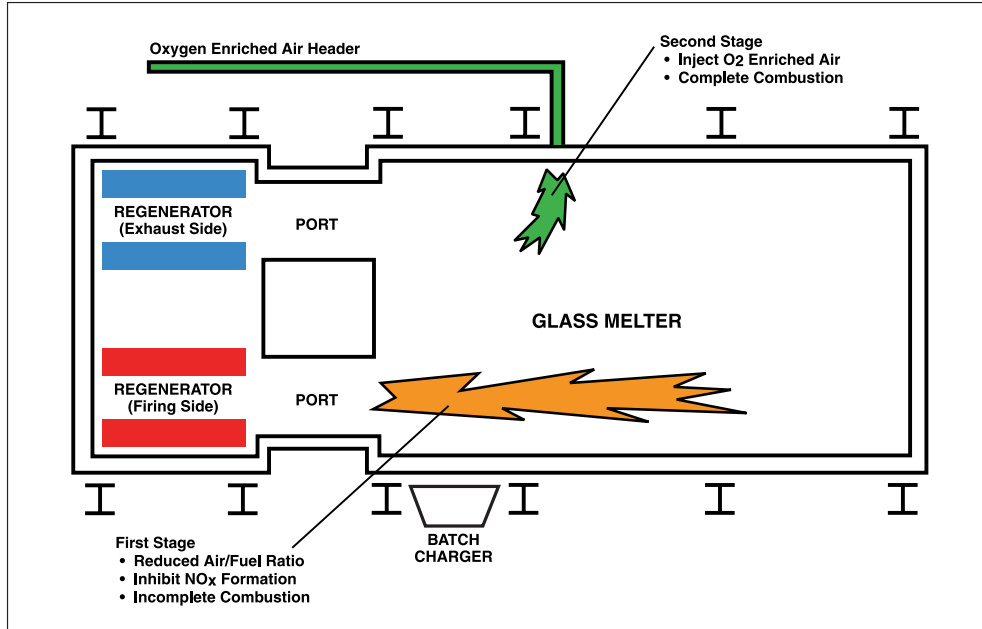
The process involves creating two distinct zones, or stages, of combustion within the melter. In the first stage of combustion, the air/fuel ratio of the main flame is lowered. Doing so decreases the available oxygen in the high temperature flame region and inhibits NO_x formation, yet increases CO formation. OEAS works by allowing the furnace to operate at a minimum excess air level to achieve NO_x reduction, while completing the combustion process within the furnace with staging. When making comparisons of all available NO_x control methods, OEAS has proven to be the best available technology for the glass industry.



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OEAS Process for Endport Regenerative Furnaces



OEAS Process for Sideport Regenerative Furnaces

