



Making our planet more productive



Praxair's OPTIMELT™ System Can Reduce Fuel Consumption Up To 30% Compared To Air-Fuel Glass Furnaces

The Praxair OPTIMELT Thermochemical Regenerator system recovers waste energy stored in regenerator checkers by preheating fuel and endothermically reacting the fuel with the carbon dioxide and steam in recycled flue gas.

The result is conversion of fuel to hot syngas – delivering a net reduction in fuel required to melt glass by up to 20% to 30% compared to oxy-fuel and air-fuel glass furnace, respectively.

What's more, the OPTIMELT system can deliver these results by using only 33% of the checker volume typically required for air preheating regenerators. The OPTIMELT system includes regenerators, flue gas recirculation equipment, ducting to the regenerators, blowers, oxygen injectors, and a proprietary control system.

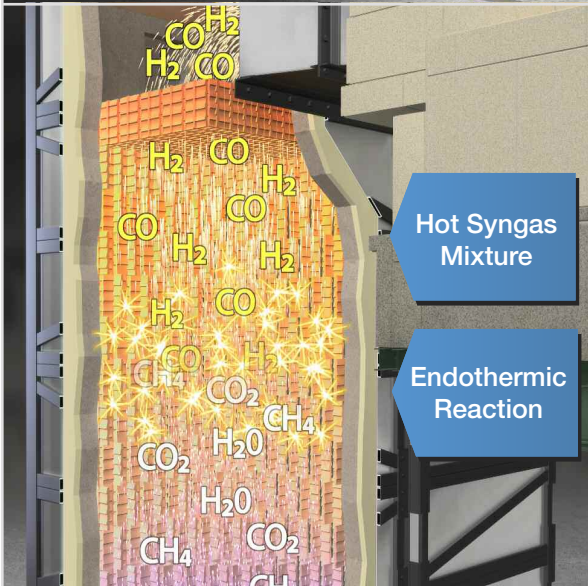


Alonso Gonzales
*Vice President,
Grupo Pavisa*

“By using the new Praxair OPTIMELT system on our oxy-fuel furnace, we have been able to realize significant improvements in furnace energy efficiency, along with an almost twenty percent reduction in fuel consumption.”

Praxair's OPTIMELT system can deliver:

- Up to 30% Fuel Savings
- Improved Furnace Energy Efficiency
- High Glass Quality
- Safe and Reliable Operation
- Robust Design



Here's how Praxair's OPTIMELT system works:

- A small amount of flue gas is recycled, mixed with natural gas and introduced at the inlet of the checker stack
- This mixture absorbs energy stored in the refractory bricks, and high temperature results in an endothermic chemical reaction
- The gases are converted into a hot syngas mixture containing large quantities of hydrogen and carbon monoxide that fuel the furnace
- This new hot syngas mixture, when combusted with oxygen, allows for more efficient combustion in the furnace

The Praxair Difference

The OPTIMELT system is another tangible example of Praxair's commitment to making our planet more productive by providing products and services that enable customers to increase productivity and reduce costs in safe and sustainable ways.

TO FIND OUT MORE about the Praxair OPTIMELT system contact your Praxair representative, visit Praxair.com or call **1.800.PRAXAIR**.



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