
What are the benefits of oxy-fuel combustion in glass manufacturing?
Multiple requests from the same IP address are counted as one view. Glass manufacturing is an energy-intensive process in which oxy-fuel combustion can offer advantages over the traditional air-blown approach. Examples include the reduction of NOx and particulate emissions,improved furnace operations and enhanced heat transfer.

Does oxygen-firing save energy in a glass furnace?
Each point refers to one existing container glass furnace. Specific energy data are normalized to 50% cullet and the primary energy consumption takes electricity and oxygen production into account (adapted from Reference [6]). Oxygen-firing is an effective solution for saving energyin glass furnaces.

How much energy does an oxy-fuel glass melting furnace use?
The overall energy consumption for an oxy-fuel glass melting furnace is approximately equal to the one in case of air combustion [7]. Beerkens [7]assumed 0.375-0.4 kWh for the electricity consumption per Nm 3 of pure oxygen generation. Based on an electric plant efficiency of 40%,~3400 kJ Nm -3are assumed for the primary energy consumption.

Can oxy-fuel furnace technology improve energy performance?
The company also continues to look to oxy-fuel furnace technology,which melts glass raw materials mixing pure oxygen (instead of air) with natural gas,significantly improving energyand environmental performance.

The company also continues to look to oxy-fuel furnace technology, which melts glass raw materials mixing pure oxygen (instead of air) with natural gas, significantly improving ...

Temperature fields, velocity fields, and glass particle trajectories were used to compare the operating conditions of air-fuel and oxy-fuel combustion, analyzing the impact of ...

As global glass manufacturers work towards fulfilling their decarbonisation goals, there is still uncertainty to which technological path will be the most practical and economical in terms of ...

The research validates the simulation that the high-temperature flue gas, produced by the pure oxygen combustion of natural gas, can utilize residual heat in a multi-stage ...

Industrial glass furnace with oxy-fuel combustion technology. Reduce costs, increase efficiency, and meet emission standards. Contact us for custom solutions

The review of oxygen staging in oxy-fuel glass melting burners presented herein highlights the traditional benefits and limitations, while also uncovering the potential role of staging in foam ...

Glass manufacturing is an energy-intensive process in which oxy-fuel combustion can offer advantages over the traditional air-blown ...

Project Summary : The Flexible Fuel Electric Hybrid Glass Furnace Demonstration project, led by Libbey Glass, plans to replace four regenerative furnaces with two larger hybrid electric ...

The company also continues to look to oxy-fuel furnace technology, which melts glass raw materials mixing pure oxygen (instead ...

Glass manufacturing is an energy-intensive process in which oxy-fuel combustion can offer advantages over the traditional air-blown approach. Examples include the reduction ...

Project Summary : The Flexible Fuel Electric Hybrid Glass Furnace Demonstration project, led by Libbey Glass, plans to replace four ...

In order for the vision of solar glass without emissions to become reality, Gridparity AG is working with glass technologists and investors to develop a concept for the construction ...

Web: https://aitesigns.co.za