

Fully Oxygen Fuel solar Glass





Overview

How does oxy-fuel combustion work in a glass melting furnace?

The addition of oxygen to the fuel almost eliminates nitrogen from the oxidiser, which greatly reduces the mass flow rate of flue gas leaving the furnace. Fives has more than 25 years experience in applying oxy-fuel combustion technologies to glass melting furnaces of all kinds, on greenfield projects as well as major rebuilds.

What are the benefits of oxygen-fuel combustion?

Oxy-fuel combustion increases furnace efficiency, reduces emissions and improves glass quality by creating a more stable process. The addition of oxygen to the fuel almost eliminates nitrogen from the oxidiser, which greatly reduces the mass flow rate of flue gas leaving the furnace.

Does oxy-fuel electric boosting improve the melting efficiency of glass?

In conclusion, the oxy-fuel electric boosting process enhances the melting efficiency of glass. Furthermore, the improved fluidity of the glass melt promotes better uniformity. However, it also shortens the minimum residence time, which can lead to reduced melting quality for faster-moving particles.

Can oxy-fuel electric boosting process be optimized?

Additionally, the oxy-fuel process promoted glass flow, and enhanced the mixing of the glass melt, although the residence time of the fastest-moving particles was only 8.0 h, which might have an inferior melting quality. These research findings can provide valuable insights for the engineering optimization of the oxy-fuel electric boosting process.

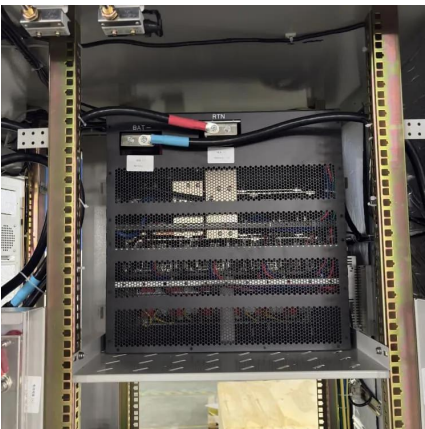


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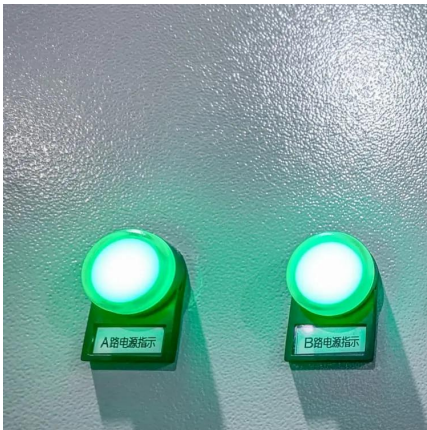
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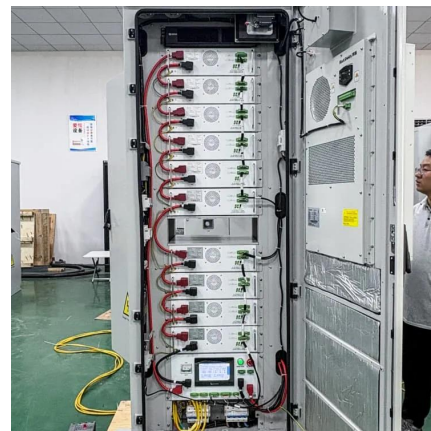
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