



# Oxy Fuel Furnaces

**TECO**

## Oxy Fuel Furnaces

### Introducing...

Oxy-Fuel melting generally makes fuel-fired glass furnaces more efficient than ordinary air-fuel furnaces.

They eliminate the need for regenerators or recuperators, which simplifies furnace operation and maintenance, and also extends furnace campaign life, it now being determined by the melter itself.

A correctly designed Oxy-Fuel furnace will result in improved glass quality and can increase glass melting capacity.

## Innovation creates:

### Improved efficiency

Eliminates the need for combustion fan, and enables an improvement in fuel efficiency providing energy savings

### Improved glass quality

Best use of refractories and design enhancements minimise glass defects

### Long campaign life

Innovative design features allow maximum resistance to wear

### Reduced emissions

Generation of NOx is minimised

### Simplified maintenance



**OI** Diagram I  
Typical oxy fuel furnace

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# Improved Efficiency & Environmentally Friendly



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Oxy Fuel Furnace

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Oxy -Fuel furnaces are an ideal way of avoiding pollution as they virtually eliminate nitrogen from the production process.

NOx emissions are substantially reduced.

Furnace efficiency is improved as the need for heat recovery systems is removed with the elimination of the combustion air fan and reduction of hot fan energy requirements.

## TECO technology: the difference is clear

Two of the main benefits of an Oxy-Fuel furnace are the improvement in glass quality that can be achieved, and the increase in campaign life.

The key factor in making this happen however lies in the design solution. This is where the experience and technology held within TECO proves invaluable. Our integrated approach to all aspects of furnace design and required operating parameters allows us to provide site-specific, custom solutions for every application.

Our extensive knowledge of glass melting processes makes us uniquely qualified to evaluate limiting factors such as fuel cost, oxygen and emission control, increased throughput, production gain and glass quality in order to deliver a successful project plan and implementation.

### Experience

Key fact about delivery of large furnace project.

### Electrode selection

TECO will provide the correct electrode material depending on glass chemistry and ensure the correct size, shape and method of installation as determined by current density requirements.

### Mixed batch considerations

TECO can implement batch plant improvements at existing facilities without interruption to glass production to improve mixed batch consistency, or provide a new batch plant at a new installation.



Oxy Fuel Furnaces

## ONE GROUP - SIX COMPANIES

As part of the TECO Group, Toledo Engineering, Tecoglas and KTG Systems can offer complete capabilities in glass furnaces of all types, with KTG Engineering supporting this activity as glass plant equipment manufacturers. Zedtec are the TECO Group specialists in forehearth and working end technology. EAE Tech provides high quality industrial automation engineering services and custom control systems.

The TECO Group has been serving the world's primary glass manufacturing industry since 1927.



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## ONE GROUP - SIX COMPANIES

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