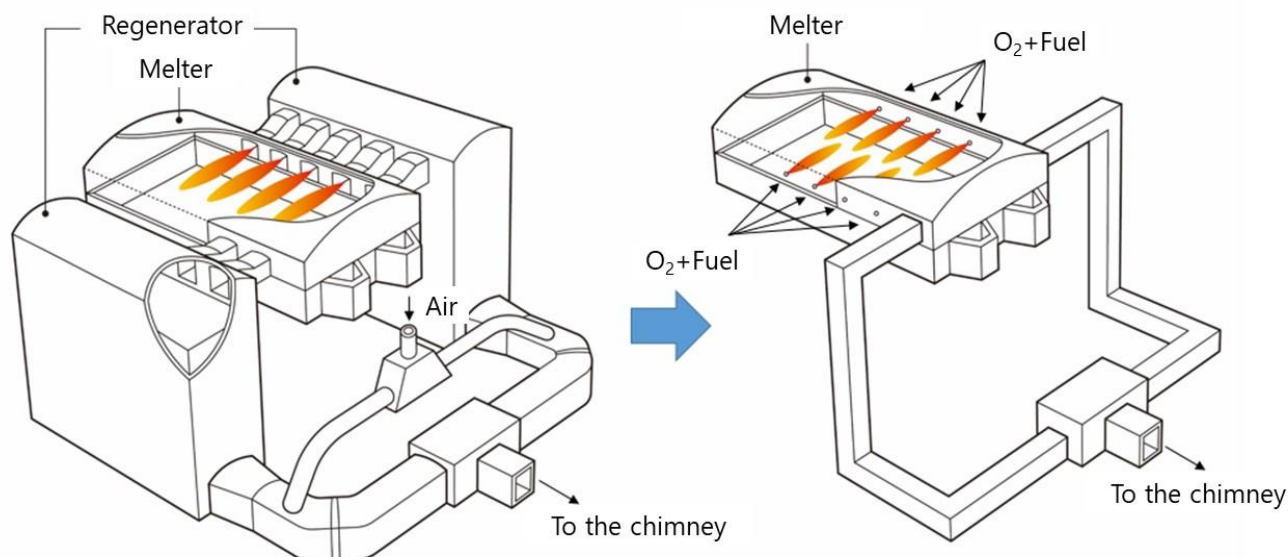


News Release (May 24, 2024)

TOYO GLASS Introduces the First Oxygen Combustion System in a Large Glass-Melting Furnace in Japan, Contributing to Reduced Greenhouse Gas Emissions

TOYO GLASS CO., LTD. ("TOYO GLASS"), a consolidated subsidiary of Toyo Seikan Group Holdings, Ltd. will change the combustion method of one of its glass-melting furnaces at Chiba Plant from air combustion to oxygen combustion during a major renovation, which is scheduled for December 2025. Such an oxygen combustion system for a large glass-melting furnace with a daily production capacity exceeding 200 tons of glass for bottles will be the first of its kind in Japan.



Large glass-melting furnaces for glass bottles in Japan currently use air combustion, but air contains about 80% nitrogen, which becomes exhaust gas without contributing to heat transfer in the glass-melting process. Combustion with air is therefore an inefficient use of energy and a significant obstacle to reducing greenhouse gas (GHG) emissions.

By introducing an oxygen combustion system, which has high efficiency of heat transfer to glass due to the absence of nitrogen, while maintaining the current production capacity is expected to reduce GHG emissions by approximately 20% for each glass-melting furnace. Furthermore, the use of bricks for heat storage in the exhaust gas of air combustion furnaces will no longer be necessary, enabling the construction of environmentally friendly, resource-conserving, and waste-reducing melting furnaces. However, new equipment for supplying oxygen will be necessary, with its associated operating costs. Nevertheless, we made this decision with the understanding of all our customers in order to take another step forward in meeting our corporate obligation to reduce GHG emissions.

Glass bottles are environmentally friendly containers that not only protect their contents but also comply with the 3Rs (reduce, reuse, recycle). With the introduction of oxygen combustion, TOYO GLASS is further developing and applying technologies to reduce GHG emissions and lower the environmental impact of glass bottle manufacturing.

About Toyo Seikan Group Holdings, Ltd.

Toyo Seikan Group Holdings, Ltd. is a world-class comprehensive packaging manufacturer, delivering a variety of packaging containers using materials such as metal, plastic, paper, and glass. In our Long-Term Management Vision 2050, “The Future, Wrapped for All,” we set a goal to go beyond our traditional field of packaging, aiming to become a corporate group that creates new value that changes society. Founded in 1917, Toyo Seikan Group Holdings, Ltd. conducts business on a global scale, with 44 group companies in Japan and 48 overseas, and currently employs a multinational workforce of 20,000 people. For more information, please visit <https://www.tskg-hd.com/en>.

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