

Press Release – for immediate publication
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glassglobal.com: Successful market launch of „Glass Engineering on demand“ - Full acceptance among international glass factories

High-speed calculation for energy efficiency and cost savings. After introduction to the market and the international glass industry, “Glass Engineering on demand” software developed by glassglobal.com/Linde Gas was received and accepted affirmatively by renowned glass factories worldwide. Satisfied customer comments prove the necessity for such an online program, which is unique all over the world.

This is to follow up the article about “Glass Engineering on demand”, published in a previous issue.

"Glass Engineering on demand" has successfully been presented at two mayor international events: Glassman in Sao Paulo, Brazil and China Glass in Beijing, PR of China, both in April 2006. The program was presented and explained to renowned glass experts from mayor glass producers for all kinds of glass products, flat, hollow, tableware and technical glass among them numerous production managers, furnace experts, batch managers and commercial departments.

The "all-in-one" combination and connection of the technical features with the commercial requirements and output figures such as cost/ton/glass/currency make this tool so very valuable. It provides a never before achievable transparency for the production process and commercial evaluation of the melting process.

There are numerous examples for it:

1) Furnace firing system

Elaborate calculation of changing the furnace combustible with various options:

- a) Gas to oil / Oil to gas
 - b) Gas fired with O₂ boosting / Oil fired with O₂ boosting
 - c) Gas with O₂ conversion / Oil with O₂ conversion
- just to name a few.

This calculation is executed always on the basis of a glass composition for, among others, float or hollow glass compositions etc. that factories can create, save and edit themselves or they may also select from a database with preset files.

Processes that can be calculated precisely and exact with the "Glass Engineering on demand" using the module "Furnace Evaluation": Calculated parameters within this module are the exhaust air volume, the complete values for consumption such as gas consumption etc., the specific energy consumption (theoretical), the energy consumption (effective) depending on the specific energy cost in US\$ per ton/glass and many more

2) Furnace Evaluation

Evaluation of oxy-boosting - there are two options:

- a) Keep exhaust volume and increase furnace output: Glass factories now can master the task of increasing the output of an existing furnace by f. ex. 10% under consideration that the exhaust air volume has to be maintained in order not to surcharge the furnace chambers. This can be realised with very minimal effort.

- b) Reduce exhaust gas volume and maintain furnace output: A revolutionary main feature that has never before been offered to the glass industry within such an online software: The progressive ageing of the regenerative chambers require the reduction of the exhaust gas volume. But this can now be realised without changing the chambers and what's even more important, without losing melting capacity.

3) Control of emissions

Not only companies that encounter trouble with their exhaust gas values but specially those that already had to face restrictions or penalties owing to having exceeded limits set by local authorities with regard to regulations set by the Kyoto Protocol should go for this software. They are now enabled to easily calculate what they have to do to minimize their emissions.

4) Batch composition

A further highlight very appreciated and commented positively by international glass factories is the batch composition. Here, the calculation of the batch is executed on the basis of a batch composition (by kg of raw material) or alternatively on the basis of the oxide distribution within the batch composition.

This module is not limited to above. It offers the additional option to calculate the batch composition on the basis of a nominal glass (preset glass analysis). The batch composition is changed by an iteration method until the oxide ratio of the nominal glass has been achieved (including tolerances).

5) Wizard Technology

In order to enhance the user friendliness of the "Glass Engineering on demand" program, a team of programmers has added several new and valuable features to make the program user-friendly, comfortable and very easy to operate.

Modern and easy to use Wizard Technology guides all customers in all menu areas, such as f.ex. furnace, glass characteristics, batch or evaluation and places automatic questions about necessary input data. Extra help text for input boxes was added, giving information about the data needed, which appears on mouse-over. This feature has increased user-friendliness and speed of "Glass Engineering on demand" enormously.

6) "Glass Engineering on demand" goes portable (USB)

In order to meet numerous customers' requirements a portable version of "Glass Engineering on demand" on an USB-stick has been launched recently. This guarantees, that this software can be used more flexible and independent to the Internet. Future developments to come are an automatic upload option to always get the latest version of "Glass Engineering on demand" for the USB-stick when logging on to the online version.

7) Conclusion: Economical arguments

With "Glass engineering on demand" glassglobal.com provides an efficient tool that is absolutely necessary and a vital factor for any glass producer.

Glass factories now can easily evaluate their scheduled or future investments regarding oxy boosting, use of oxygen, use of cullet preheating line, just to name a few. They get clear results about the ROI of an investment, with detailed figures and consequently can determine their amortisation schedule.

Numerous comments at exhibitions and conferences made clear that this is a very important part of this program because it is indispensable for glass factories to evaluate figures before taking action regarding execution of repairs, revisions or modernizations.

8) Service and options

A team of glass engineers at OGIS GmbH or Linde Gas AG is available giving support and technical assistance to whatever questions may come.

In order to get an impression about the efficiency of this tool, glassglobal.com has created an evaluation access that can be requested online at www.glassglobal.com/engineering against company/contact information and email address.

With "Glass Engineering on demand" and all other services on glassglobal.com, such as the international Directory, Technology, the Trade Market and other

features, glassglobal.com confirms again its unchallenged position as the world's leading glass portal.

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