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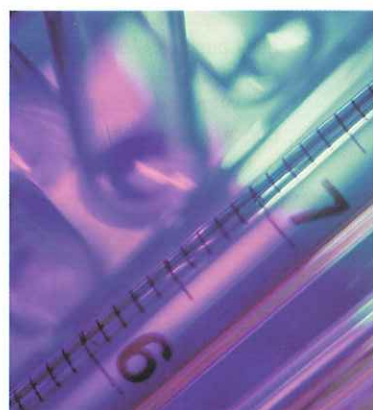
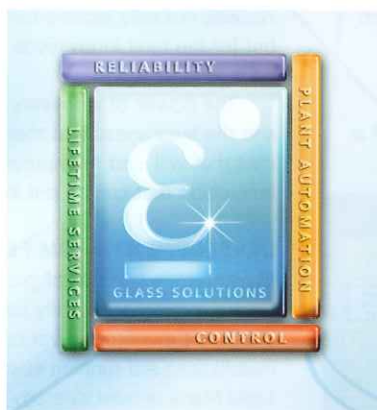


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- Glass Boosting
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**Eurotherm Glass
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Eurotherm – a lifetime in glass

Developing technology from feedback

RENÉ MEULEMAN EXPLAINS HOW THE SUGGESTIONS AND FEEDBACK FROM CUSTOMERS HELPS IN THE DEVELOPMENT OF NEW PRODUCTS



THE EPOWER CONTROLLER

The world's glass executives get together at the glasstec international trade fair in Düsseldorf to exchange ideas for the continuing development of the glass market. The Eurotherm Glass Vertical Team meets glass customers from all over the world on a daily basis. These customer contacts are always very interesting but for Eurotherm, they become particularly valuable when the discussions are focused around innovating technologies.

It is then that Eurotherm's glass knowledge turns into added value for customers. The Account Managers in Eurotherm's Glass Team are specifically trained in glass technology issues to be able to discuss technological issues at peer level. Eurotherm understands customer demands and is able to answer questions.

A CONSERVATIVE INDUSTRY

The glass industry in general tends to be conservative in its outlook, which may not be very surprising since its biggest asset is the glass furnace, with a lifetime of 10 to 16 years. Proven technology feels safe and nobody likes to leave his comfort zone, but is this a wise strategy?

For almost all glass manufacturers there are only a few points in time where they are able to improve their operations, and that is during a major furnace repair or a greenfield installation set-up. Repairs can take place only once every 12 years or so, and building greenfield installations is far from daily business for most glass customers.

With knowledge of this conservative approach, the staff at

Eurotherm were still surprised when, during a recent meeting with a customer discussing a new production facility, he responded to our question about what this new facility would look like with the answer: "We will copy the existing facility." The existing facility is now more than 10 years old!

SUFFERING FROM COSTS AND LEGISLATION

The glass industry is suffering greatly from the upward spiral of energy costs and stricter environmental legislation. These two issues alone are arguments enough to be more innovative, especially if the window of opportunity to introduce new technologies is as rare as it is in glass industry.

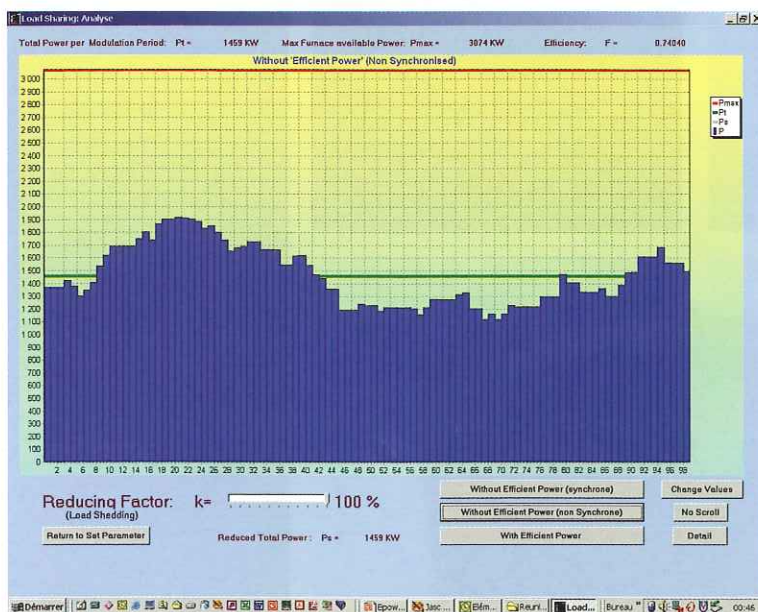
More recently, one of the Eurotherm glass team had a meeting with an executive of a global glass supplier who simply asked him: "Show me how your innovations are able to serve my business for the next years." He was not only looking for the best value for money, but for the best innovations he could buy for the money he is able to spend.

The power of innovation lies in open communication and the awareness that there is always somewhere an idea that will lead to improvement; sharing ideas leads to innovation that can be put into practice together.

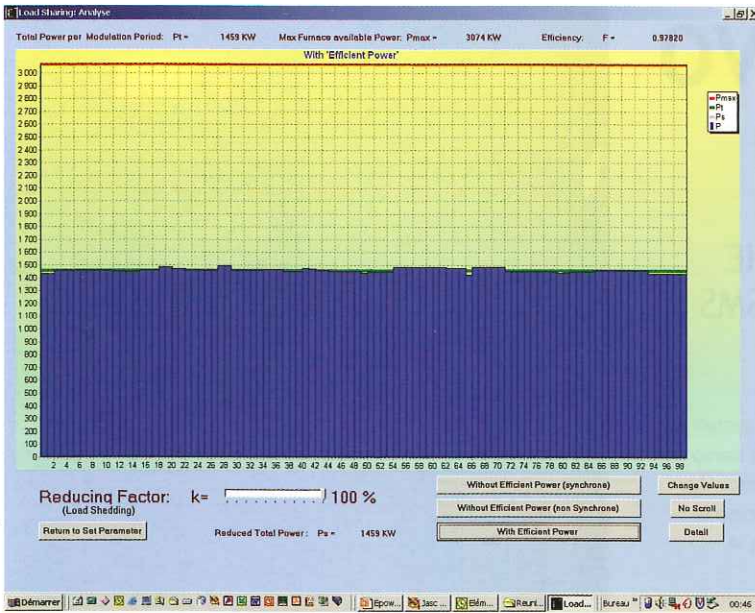
DEVELOPMENT FROM FEEDBACK

Eurotherm, a supplier of process control and power control systems, recently introduced the new EPower intelligent thyristor power controller line. The first installations are running successfully and the Predictive Load Management strategy (PLM) is proving its added value for float line bath roof and lehr heating systems. The development of this new product is the result of discussions with, and feedback from, many customers. This input resulted in a new design and software developments, combined in a new product to serve the glass market.

Based on the EPower technology Eurotherm, together with a customer, has recently developed a container glass forehearth boosting system with a controlled DC bias. The technical basics of this boosting system are very old but this technique was combined with the latest SCR technology. The next challenge will be to redesign the basic forehearth boosting approach to be able to control temperature / viscosity in a better way.



PEAK POWER DEMAND WITHOUT PLM



SMOOTHER POWER DEMAND WITH PLM

CONTROLLING GOB TEMPERATURE

Eurotherm is currently discussing with BASF and TNO some new ideas for controlling gob temperature for container glass. Delivering a better controlled gob to the IS machine will lead to

higher pack-to-melt results and therefore will decrease energy consumption and increase profits. The first optical gob temperature trends are available and they show interesting results which could lead to the conclusion that the proven technology of temperature control

on the basis of thermo elements is not as good as was first thought.

Fortunately some leading end-users have started showing interest, but will it not take long to establish it as a proven technology because Eurotherm intends to stick to a 30 year old method of controlling forehearth. Now that it is possible to measure gob temperatures, should we consider redesigning forehearth and their control, then bring it into practice as a proven technology?

The Eurotherm glass team is open for discussion with the aim of improving customers' business and adding value. To achieve this, the company strives to partner innovating glass companies to be able to share knowledge and to learn from customer experience, and therefore create improvements together. ■

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