

Glass

INDUSTRY

Our customer is an established company within the glass industry and operating in more than 50 countries worldwide, is one of the world's hundred leading industrial corporations, and employs a workforce of over 200,000.



Glass Fibre Manufacture Efficiency Now 95% Case Study

A new patented control strategy designed for glass industry customer, increased glass fibre manufacture efficiency to 95%

Customer challenge

Glass fibre manufacture requires a high level of accuracy and reliability to achieve a consistent quality in the fibre produced. Manufacturing costs increase if either of these two areas does not achieve the highest levels possible.

Our customer was experiencing a range of differing efficiencies across a number of their bushings plants in different parts of the world. The issues were related to fibre production reliability and recovery from fibre breakages. Our customer needed to achieve the same level of efficiency across all plants, and this level was to be at least the same as the highest achieving plant.

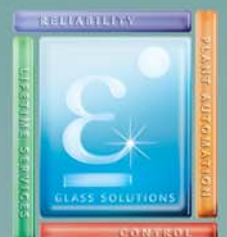
Process analysis

Working with our customer, combining their process knowledge and requirements with our control expertise and capability, the existing bushings process as a whole was investigated and analysed. The results of this activity lead to the development of a new control strategy for the control bushings process. The changes required to realise this new control strategy were implemented without the need for any costly changes to the existing control hardware installation, only an internal upgrade to the temperature controllers.

Solution evaluation

When the changes to the control strategy had been implemented and refined, the results proved to be beyond expectations. A repeatable efficiency of 95% was achieved, delivering increased productivity and return on investment (ROI).

$$\text{Efficiency} = \frac{\text{Plant Availability} - \text{Downtime}}{\text{Plant Availability}} = 95\%$$



How these improvements were achieved

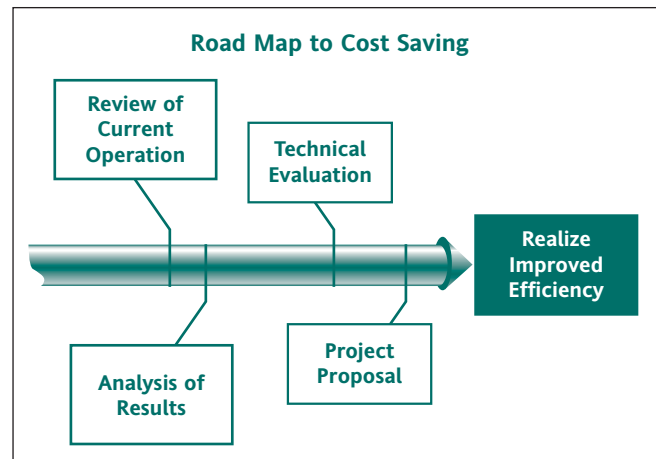
Improvements were achieved in two main areas:
Firstly the improved strategy provided a more reactive and sensitive control to the bushings process, this has led to a significant decrease in fibre breakages during processing and hence reduced downtime.

The effect of fibre breakages has been further reduced by an improved recovery time. The recovery time has been reduced from an average of between two and three minutes down to 40 seconds

These combined savings serve to reduce overheads and increased operating profit before tax (OPBIT).

The process to allow you to benefit from these control improvements

- Review of current operation
- Analyse results from above
- A technical evaluation of your process will be undertaken
- Eurotherm will propose the modifications to your process control to enable you to realise improved efficiency



Eurotherm – Committed to increasing efficiency

Eurotherm: International sales and service

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