Using compressed air in glass manufacturing

Menno Verbeek* discusses a monitoring and analysis system which shows how much compressed air is being used.

Dutch company VP Instruments has launched a web based monitoring and analysis system for visualising a complete compressed air installation, from compressor to all end users.

VPVision 2.0 uses 'dashboards' and shows in real-time where, when, and how much compressed air is used, creating the basis for accurate inventories, analyses and reports.

The company, from Delft, said it is a configurable web based tool and can make savings in generating, conditioning, distributing and applying compressed air.

According to the company, a decrease of 20 to 50% in the total of all compressed air related costs are now the rule rather than the exception.

Energy savings

Even in the case of a modern compressor installation, approximately 75% of the electric energy is converted into heat when compressing air.

The energetic return is decreased further by drying/filtration and yet more energy is lost due to resistance in transport lines and leaks in couplings, pneumatic tools, cylinders and valves.

All of this makes generating, conditioning, distributing and using compressed air an industrial cost item. Investigations reveal that as much as 10% of all electricity costs are borne by the compressed air installation, making compressed air one of the most costly energy vectors.

Practical experience demonstrates that by detecting and realising opportunities for system optimisation, 20 to 50% can be saved on all compressed air related costs.

Because of this high savings potential, all investments in compressed air monitoring and analysis systems always have a relatively short payback time.

Web-browser

With VPVision, the whole compressed air system is depicted via a web-browser, from compressor installation to end users.

VPVision shows exactly where, when and how much compressed air is used, enabling a targeted analysis that creates the basis for further energy reduction. Thanks to a user-friendly presentation of actual and stored data, combined with automatic reporting, the user gains a direct insight into the actual performances and behaviour of the compressed air system.

VPVision can be accessed via all common browsers on a PC, Tablet, handheld, PDA or mobile phone. ■

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