



2016.12.01

FROM LOCAL TO GLOBAL IMPACT: EQUIPMENT EFFICIENCY POWERS ENERGY SAVINGS

Thermal insulation is one of the most economical and effective solutions to reduce energy consumption and greenhouse gas emissions. An insight into how Essilor continues to explore additional energy efficiency improvements in its manufacturing processes.

Anti-reflecting coatings are applied in high vacuum chambers at mass production and laboratories. The diffusion pumps used in these machines consume significant amounts of electricity to generate and disperse the high temperatures required in the coating process. In 2013, Essilor began to explore technical modifications to optimize energy use. Two small adjustments were identified: the first insulating the lower part of the diffusion pump, to avoid heat loss in the room; the second regulating the oil temperature instead of continuously heating at maximum power.

The improvements were tested at the Group's technical platform in Dijon, France, equipped with a production line enabling engineering teams to develop and trial new manufacturing processes and product prototypes. After testing delivered impressive results, the team validated the potential energy gains in one of Essilor's manufacturing sites in China. The result: a 13% reduction in energy. With more than 400 machines of this kind used across the Group, it represents a global annual energy saving of 10 000 MWh.



Compared with many industrial transformation processes, the energy required for manufacturing finished and semi-finished lenses is minimal. Essilor has a core team based in France that works with manufacturing sites and labs across the Group to continually improve energy and water efficiency. Ideas and best practices are shared via online tools and through the Group's knowledge and technical skills community. It's all part of a coordinated approach to ensure that Essilor continues to be ranked one of the 100 most sustainable companies in the world.

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