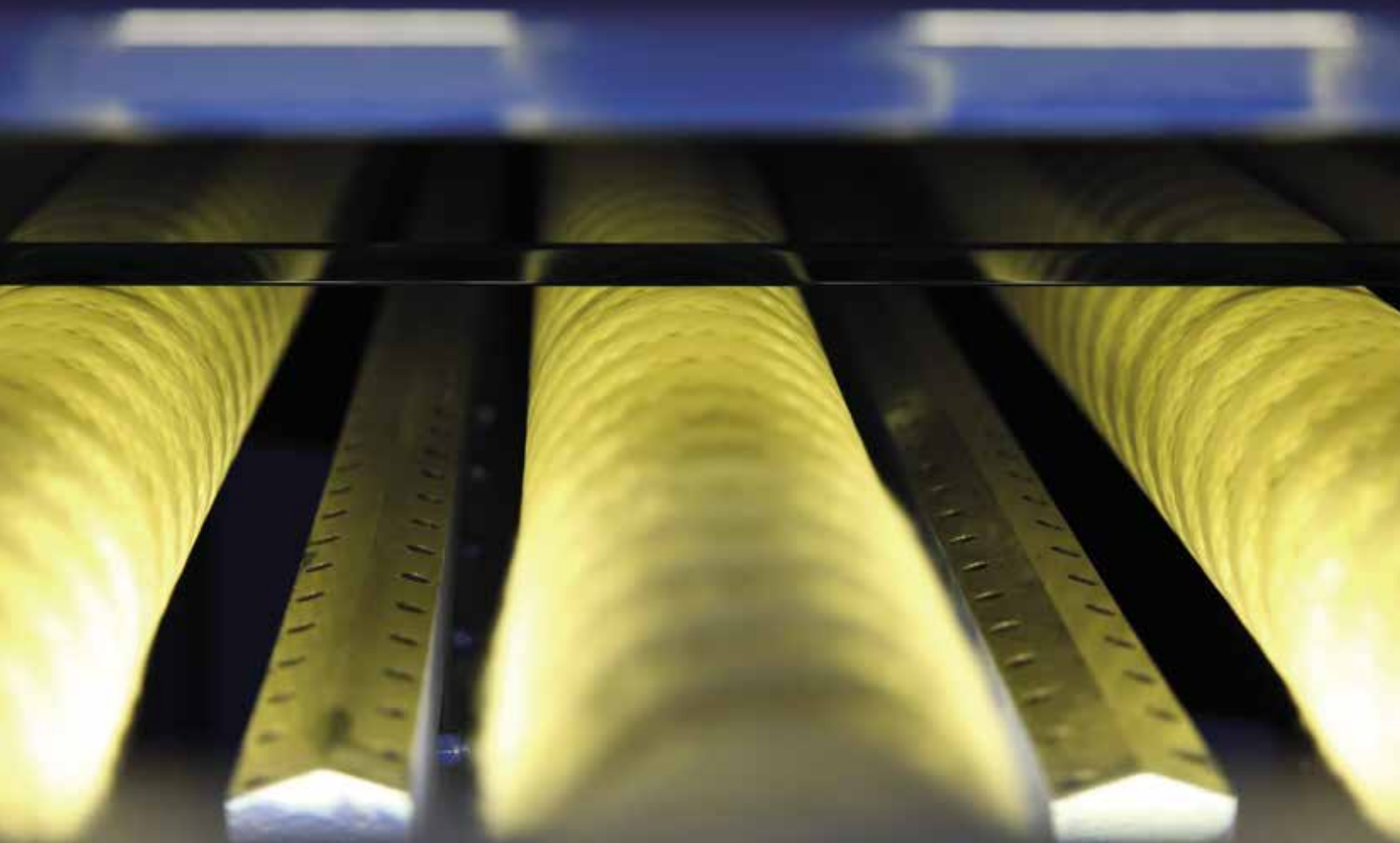


MAPPI's developing pact with the environment

Forging ahead with its commitment to energy-saving, MAPPI continues its respect for the environment, mindful that such terms as "energy emergency" and "environmental emergency" still drive the conversation in a sector as energy-intensive as glass tempering - where the big questions are daily confronted.



With environmental protection and responsible energy use among the core values at Mappi, a company at the forefront of the glass tempering sector, GTI quizzed CEO Nancy Mammaro on the concrete problems out there and how best to solve them. "It's precisely because we at Mappi perceive the serious issues in these areas -never to be underestimated- that we believe they shouldn't be considered 'emergencies' per se. An emergency is something unpredictable. Yet we respond to the problems with facts, which is why we've been aiming to design and build hardening furnaces with zero waste for years."

UNDERSTANDING ZERO WASTE

Upon examining comparative studies conducted by Mappi we were able to see a difference in terms of costs, consumption and performance between a new generation oven and an older one. Here zero

waste means minimizing those situations in which the oven remains on - essentially consuming energy while producing nothing. Zero waste also means guaranteeing that internal oven temperatures, both whilst heating and during subsequent cooling phases, remain inside in order to ensure there's no dispersion. Here's why Mappi uses materials of absolute excellence when constructing its ovens, as well as cutting-edge thermal insulation solutions. And the result? A Mappi oven that's powered off loses about 15 degrees centigrade per hour where a traditional one loses an average of

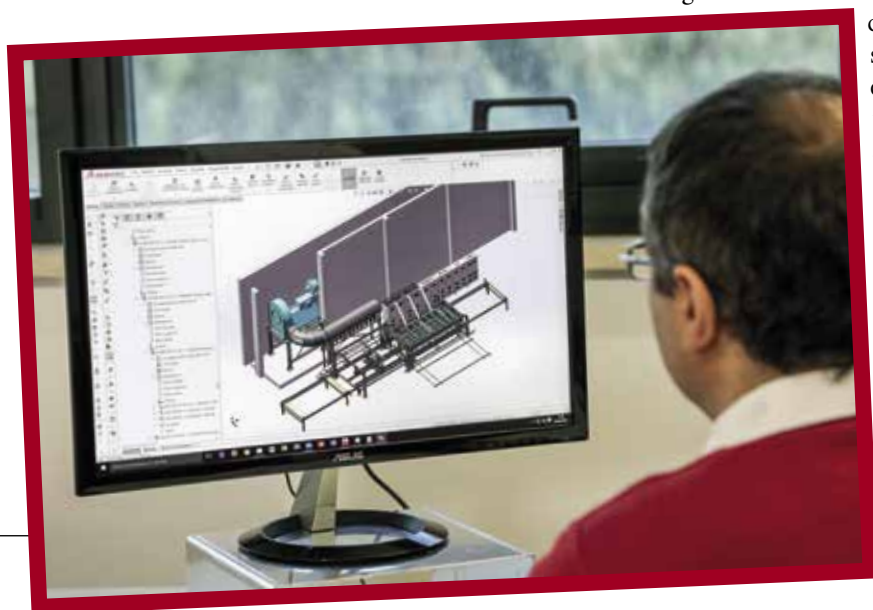
45 - namely triple. All this heat must be recreated by consuming precious energy that, besides being necessary to reach the 700 degrees required for tempering, won't drop below 400, i.e. the minimum level below which installation times would become very long. Low dispersion means the Mappi oven remains hot - which, at the start of the day, would be ready to harden within an hour.

THE IMPACT OF WASTE UPON COST

Keeping the oven on and in stand-by mode to prevent it from dropping below 400 not only at night but also -and above all- on weekends means significant spending day by day, year after year - all of which amounts to tens of thousands of Euros per annum. Perhaps this could have been tolerated in the past. Today it's no longer possible, given that gas prices have increased more than 10 times over. Here the very survival of

glassworks is at stake. It's about what gets saved, or wasted, during those moments when the oven isn't producing, though preparing to do so.

As Nancy Mammaro explains: "It's years now that we've been working with three clear objectives: to make the life of the glass-maker easier and more profitable, to create machines that will constantly guarantee the highest quality of glass and to offer our contribution to a method of production that's both environmentally respectful and an enemy of waste."



MAPPI
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