Glass tempering: MAZZAROPPI's energy-efficient solutions

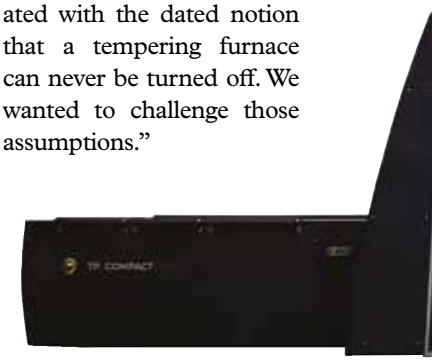
A glass tempering leader since 1958, MAZZAROPPI specialises in sustainable, energy-efficient furnaces that are engineered to cut costs by reducing consumption. Offering flexibility, its systems will heat rapidly, which is how the company is assisting small and medium-sized glassworks to drive savings by enhancing their tempering processes. Mazzaroppi also offers a complimentary energy check and feasibility study to identify potential savings.

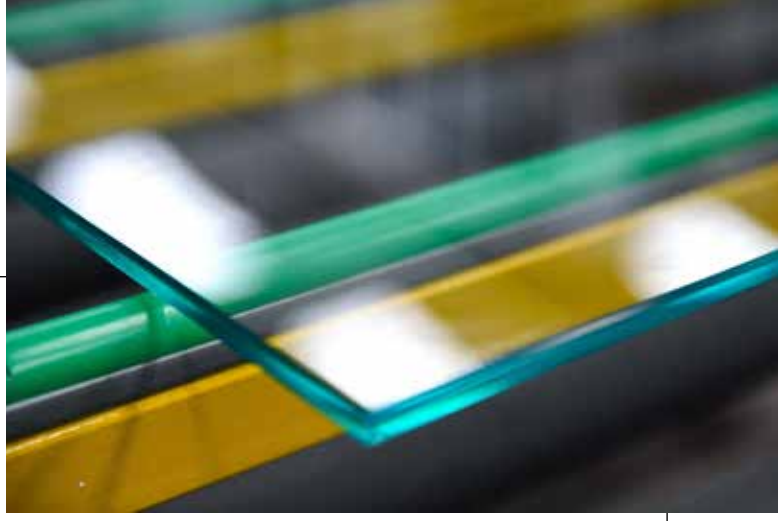
According to Mazzaroppi, today's most efficient furnaces can save up to 70 percent energy. Such is the energy-saving approach by which the company makes glass tempering sustainable both for the environment and for its customers. This can come as a relief to companies wrestling with the large consumption of their tempering furnaces - especially when the machines themselves are low-tech or obsolete.

Known internationally, the focus of Mazzaroppi's attention has always been the achievement of an important goal - namely that of significantly reducing the requisite energy costs of tempering furnaces.

TP COMPACT

Initial results have already been successful. An example of this is Tp Compact, the tempering furnace designed, engineered and manufactured by Mazzaroppi with all those small and medium-sized companies in mind that have hitherto been hesitant to venture directly into glass tempering owing to the considerable costs of adapting and using a tempering furnace. Says General Manager Antonio Mazzaroppi: "Those experienced in the tempered glass industry are familiar with the classic problems associated with furnaces - the significant size of the electrical system that's required, the huge energy costs of production and, above all, those unsustainable costs associated with the dated notion that a tempering furnace can never be turned off. We wanted to challenge those assumptions."





ENERGY SAVING

"The solution to these problems," explains Antonio Mazzaroppi, "is to design furnaces with new vision by focusing on energy conservation and integrating them into the context of Industry 4.0. It's that idea which gave rise to our energy-saving approach: designing and manufacturing sustainable machinery both for the environment and for businesses."

Indeed Mazzaroppi systems -including TP Compact- ensure a low energy consumption within the industry while offering high efficiency and providing such performance capabilities as:

- Lower initial cost: the price to be paid for a Mazzaroppi furnace substation can be up to 70 percent lower than that of the company's competitors;
- Consumption in production of up to 100 kWh: up to three times less than many other tempering furnaces on the market.
- Zero unproductive costs: furnaces can be turned on and off as desired because they reach temperature within just 60 minutes. In the case of TP Compact, temperature is reached in 30 minutes in the days after the first use;
- Lower fixed cost for contract kW: companies can obtain more favourable contracts with energy suppliers precisely because of their consumption reduction;
- 40 percent residual value at ten years: according to Mazzaroppi, one of its furnaces will not only mean utility bill savings - it will also protect the purchasing company's investment.

FREE COMPANY CHECKS

"In a long-term investment like a tempering furnace," concludes Antonio Mazzaroppi, "operating costs far exceed those of the initial investment. With our engineering technology these operating costs are reduced." In sum, the company pledges that with one of its furnaces even small and medium-sized glassworks can perform the tempering process in-house without the worry of having to temper constantly to meet huge monthly plant costs. For companies interested in optimising the energy efficiency of their quenching processes, Mazzaroppi offers a free energy-saving check, which includes a feasibility study that will indicate to companies how much it is wasting on energy and how much it could potentially save.