GLASS COMPANY - all set to score at South America 2022

LASERMEK SCANNER

A laser machine series designed and proposed by Glass Company, LaserMek immediately stands out for its use of scanner technology for the engraving and ablation of any type of glass surface coating. An innovative multifunctional technology which, in a single step, will remove portions of coating starting from tens of centimeters (mirror, lacquer, hardcoat, reflective, etc.), it can also engrave lines of Low-E coating to a few hundredths of a millimeter (from 0.05 mm) with extremely rapid, high precision processes that will yield an elevated end-product quality as well.

Mind, too, that this technology can be applied to different process types, spanning various industries including:

- The furniture sector, especially bathroom furniture but also for other settings, or in furniture that requires mirrors of high aesthetic impact. Here LaserMek allows for the removal of silvering from the mirrors - which leaves the glass completely transparent and capable of reproducing any image and/or photo type upon mirrors or when, for example, installing TVs.
- The furniture and construction sector. Here, by choosing an appropriate laser source, it's possible to create graphic and decorative workings on glass surfaces - leaving an opaque effect. This technology allows for engraving, e.g. of logos - even upon tempered glass, for partitions, glass doors, windows, etc.
- The refrigeration sector. Thanks to LaserMek it's possible to micro-engrave the electro-conductive coating on glass surfaces, thus creating lines and coils that are nigh invisible to the human eye and which, by interrupting conductivity,

As the worst effects of the pandemic continue to wane, GLASS COMPANY prepares now to present its most recent innovations after consistent development and improvement of its customizable glass processing machines that use laser technologies - covering both glass surface treatment and glass drilling.

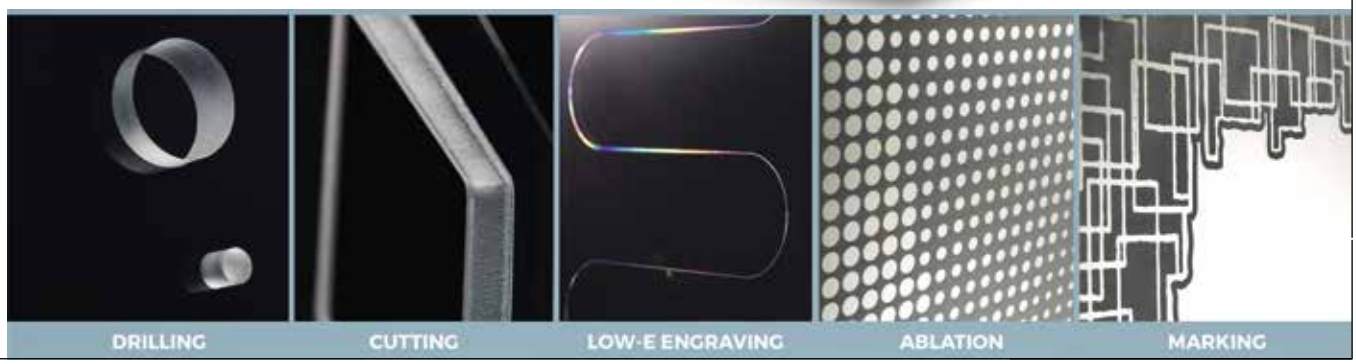
allow for the attainment of heated, anti-fogging glass - a feature also suitable for the thermo-supply sector, given that it allows for the simultaneous creation of both heating and decorative panels.

- LaserMek Scanner can engrave most coatings to create glasses for specialized performances, such as those for anti-collision of birds, those that allow for radio wave transmission, those that can become antennas, those with antibacterial performances - and more besides.
- Lasermek-processed glasses are now used also in the furniture, industrial refrigeration, nautical, railway and automotive sectors, among others.

LASERMEK DRILL

Another highly-innovative laser technology is represented by the LaserMek Drill, a glass-drilling laser for creating holes of any shape and geometry, starting from the classic round hole to holes that are square, oval, trapezoidal mixed square with round holes, etc., to the point of avoiding buttonholes at the edge of the glass. Maximum hole size is 80x80 mm - a measurement that can be increased by leveraging very sophisticated optics.

Here processing times approximate those of the classic water jet-cutting systems, also offering significant advantage over processing given the total absence of water and abrasive, As such they generate no expensive waste requiring disposal while having an energy consumption of about 3Kw in comparison with what's required to power the hydrojet, i.e. about 40Kw. There is also a total absence of noise and,



above all, extreme cutting precision since the laser beam will not wear out like common tools thanks to the infinite repetition of drilling and cutting tolerances. Consequently the laser will be respectful of the environment in allowing for noteworthy energy savings at a time when energy costs are weighing heavily upon industry in general.
Using no consumable tools (since the laser beam's unchanging dimensions guarantee extreme precision and repeatability during drilling) and having a laser source duration that runs to thousands of hours, laser cutting is currently the best solution out there for effective and real savings - both in terms of energy and machine processing costs. Moreover, thanks to its sophisticated laser source -Made in Germany and the USA- and the right software managing the entire drilling process, the company can create tailored machines together with its customers - all to meet their technical/financial needs.

FIREMEK

For some years now, innovation at Glass Company has had the company developing and implementing FireMek - its own technology for the production of Fire Resistant glass - which is suitable for both flat and curved glass.
Initially developed as a manual system, FireMek later became a semi-automatic system for the production of a few hundred square metres of fire resistant glass per month. Today it's also available as a fully-automated version for the production of large quantities of fire resistant glass - an added plus that aims to satisfy many performance requirements.
Continuous system evolution allows for error-free preparation of the intumescent mixture. This is thanks to the exclusion of any human component and a weighing of the components, which guarantees optimum heating and cooling of the mixer during the vacuum process.

Also, owing to PC-controlled weight and volume, precision-filling of the glass ensures that daily production of the silica-based intumescent mixture -extremely transparent and without bubbles- can be replicated over time without variation or error. Here the process concludes with crosslinking of the previously-prepared sandwich within an oven specifically designed for the production of fire resistant glass.
Each production line component has been designed to reduce and eliminate defects that would typify this kind of glass while making the process as standardized as possible - compliant with the most stringent European safety regulations on class E, EW and EI in case of fire hazards owing to flames, noxious gasses and heat. With a sandwich system that consists of two glasses enclosing the intumescent mixture obtained with the company's system, resistance times increase as the glass layers and intumescent mixture increase for EI 30, EI60, EI90 and EI120 glass.
In sum, coupled with Firemek's extreme ease of use, its sophisticated technology leaves the production of fire-resistant glass no longer exclusive or the prerogative of just a few producers. Instead it is usable now by medium-small businesses as well.

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