



FOREL at Glasstec: automation, innovation and bestsellers

As a proud, interrupted supporter of Glasstec Dusseldorf since the 1980s, Forel SpA has remained consistently committed to exhibiting its very latest innovation and automation for the flat glass industry - a forty-year participation that's crowned in 2022 with even greater floorspace in celebration of the International Year of Glass.

With a fresh new stand design and layout for this milestone event for the glass industry, Forel has chosen once again to confirm its participation at Glasstec this year after the forced hiatus of 2020. Given the special significance of the upcoming edition in Dusseldorf from 20-23 September, which coincides with the International Year of Glass, the company has sought to enhance its visitor experience by becoming one of the event's 'must-see displays'. Here it will showcase innovative solutions, next level automation as well as best sellers in insulating glass assembly, integrated logistics and vertical processing.

INSULATING GLASS LINE WITH INTEGRATED LOGISTICS

The latest addition to the Forel range of automation will be in operation at Glasstec '22: a fully-automatic IGU line complete with thermoplastic spacer. Developed in accordance with Industry 4.0 principles, this line can be managed from a single workstation - delivering high productivity, precision and quality as well as a highly-reduced manpower equivalent. The line is automatically-loaded from the Art. SS Sorting System,

Forel's stock handling and storage system for glass sheet management during production that's capable of automating output from production control software and programming. Exhibited for the first time at Glasstec, the Sorting System has clear advantages, which include illuminated bottlenecks, sequence errors and indecision - all with clear gains in output, process control, safety and quality.

THE ART. TA THERMOPLASTIC APPLICATOR

At the heart of this 'high tech', double-glazing line is

the new Art. TA Thermoplastic Applicator, which is designed and developed for both ease of use and continuous productivity - extruding and applying the thermoplastic product with precision and accuracy. The software already contains the most used production programs commonly-associated with the various requirements related to this kind of IGU. The interface is very user-friendly, simple to understand and intuitive to operational demands. The applicator's automation is key to high productivity, with options to automatically change profile thickness,

corner radius and viscosity via simple modifications to work parameters - all directly from the PC. The thermoplastic spacer is continuously processed through the system via a tandem pump unit which consists of two precision accumulators that feed the application head. This configuration proves particularly beneficial when it comes to product replenishment - allowing non-stop changeover of the drums and any associated loss in production. Due to the characteristics of the thermoplastic spacer, the temperature of the product is monitored and controlled





automatically throughout the extrusion process.

FOR EVERY KIND OF SPACER

The line proceeds with a series of innovative features to accommodate specific characteristics of the panels. Among these, Forel has paid particular attention to the Art. AP coupling press - developing a dedicated option that allows the module to process both traditional rigid spacer bar and thermoplastic glass production. The final step of the lines process is usually entrusted to the Art. SR 'High Tech' sealing robot - already widely-appreciated for its production of insulating glass units with either rigid or flexible profiles. Here the process is completed with the new Art. GU automatic unloading system. Upon being sealed, the finished panels are managed by a special vertical suction cup table that gently

deposits the units onto waiting trolleys at the front of the production line. This system ensures precise placement of the successive unit so it rests on the previous panel without any risk of damage. Once the first side of the trolley has been fully-loaded it can rotate on itself, thereby facilitating continuation of the unloading process. The Art. GU model set to be exhibited at Glasstec features a unique system that allows for safe storage of both rigid profile panels and those produced with a thermoplastic spacer. Forel will also be exhibiting machinery options for the preparation of a traditional rigid spacer, namely the Profile Bender Art. PB, Desiccant Loader Art. DF and Manual Butyl Applicator Art. MB. The profile bender has been enriched with a series of innovations by which to bend a plastic "warm edge" spacer - so offering a perfect 90° corner thanks to

its patented Smart Arm technology.

THE VERTICAL EDGE PROCESSING RANGE

At Glasstec 2022, for the very first time, the entire range for vertical edge processing will be displayed and demonstrated at the same event. The vertical edge processing line that will be in operation -widely regarded as world-class and conspicuously excellent within the industry- consists of the Art. EM Edging Machine, the Art. DM Drilling Milling Machine and the Art. VW washing machine. The combination of machinery modules can perform multiple processing tasks, including arrissing, grinding, polishing, milling and drilling - all completed by final washing to both the monolithic and laminated glass sheets. Three in-line machines with independent solutions capable of operating simultaneously on different glass

sheets are simply managed from onboard software, increasing productivity and quality. The Art. EM and Art. DM modules have a proven, worldwide reputation for stability and accuracy - both essential in delivering the required result. The 'sister line', known for its high output, is the Forel arrissing line, which consists of the Art. EG Arrissing Machine and the Art. VW washing machine. It's specifically designed for glass processors who need to remove the sharp edges and micro fractures of glass with minimal setup and maximized output. The Art. EG shares the entire patent package of the range, with its two operating heads that guarantee remarkable speed of execution. Thanks to its configuration, the arrissing machine can process two separate sheets either simultaneously or as one large sheet in a single pass - both at high-speed precision. All Forel vertical edge processing machines use standard diamond encrusted grinding tools that guarantee both high quality edge work and extended life cycle.

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