

Glasstec to see **FOREL's** latest insulating glass triumph





An established global manufacturer of both flat glass machinery and processing technology after almost fifty years in business, FOREL's commitment to the world's most prominent international trade fair for glass grows in lockstep with its passion for automation through innovation as the company remains attentive to the same market requirements and megatrends that are reflected in its innovative products.

A MUST-SEE FOR ALL IN THE GLASS INDUSTRY

With Glasstec scheduled to take place in Düsseldorf over late October with a focus upon such trends as decarbonisation, digitalisation and sustainability, Forel has confirmed its participation as it prepares to exhibit machinery and product solutions associated with today's manufacturing challenges. The company is proud to represent 'Italian Excellence' as its backdrop to automation with an important display of its knowhow, technology and production performance. Showcasing the very latest machine innovations with live demonstrations, Forel will also be introducing enhancements in vertical edge processing, production with Thermoplastic and a fully integrated logistics systems for completed glass units - directly from the end of an IGU line.

THERMOPLASTICS INNOVATION: A NEW FOREL PATENT

Taking centre stage at the company's stand this year will be an important patent innovation that allows for the accurate placement, dimension control and management of Thermoplastic spacer beyond 20 millimetres - part of an automatic inline solution for double and triple glazed units. The development path that led to the latest enhancement began back in 2020 after the Forel R&D team succeeded in improving critical aspects associated with the process. From their research and analysis, the nuances of the extruded material were better un-

derstood and led to the innovative implementation of the production control buffer, which is positioned between the thermoplastic applicator and the coupling press. The purpose of the buffer is to consolidate the materials characteristics with best coupling performance without impacting the overall efficiency of the production line. This methodology delivers safer and faster pressing, even when the profile is extruded at 5.3 mm height and 20 mm plus spacer widths too. The need to expand the processing range of thermoplastic spacer was entirely client-led, with the new patent allowing for the precise extrusion of 20 mm plus spacer. This ensures that the extruded material is placed

in its optimal geometric position without any deformation. Another aspect that has been improved is the unloading phase of the completed unit. As the output performance of the line has increased so too has the need to handle the high production volume generated by the improved technology. Optimising the use of manpower is always a priority, which is why it was deemed necessary to increase the speed of unloading without using additional personnel or compromising safety.

HANDLING AND MANAGEMENT OF COMPLETED GLASS UNITS

Automation, speed and safety are three key words in insulating glass produc-

tion and are all particularly important at the end of the line. Addressing this trio of points is the integrated Sorting and Stocking System for completed units - an innovative automatic logistics system which generates many production advantages. Especially useful in the manufacture of Thermoplastic IGUs, this warehouse module revolutionises the post production management of finished panels. Located directly after the sealing process, patented supports are automatically placed underneath the finished panel, thereby removing any misalignment or deformation of the glass panes during the sealant curing process. The completed unit then transitions automatically into the



warehousing system to be sorted and stored prior to their transport to site.

VERTICAL EDGE PROCESSING: FURTHER IMPORTANT UPDATES

In addition to double glazing lines, Forel's entire range for vertical edge processing machines compliments the overall glass factory picture.

As the best selling product in this range, the Art. EM edge grinding machine receives a new feature that guarantees a step change in performance efficiency, namely the automatic tool cone changer - an upgrade which optimises the platform's level of automation. Here, combined with reduced tool handling, an eight-position cone magazine can be added to carry a varying number of tools per cone, thereby increasing both efficiency and productivity while being all delivered in a single option. The need to process different thicknesses of glass is a constant necessity with alternating orders. Now the automatic tool changing option affords processors an unquestionable advantage in the management and effective efficiency of this module. Another requested improvement to the vertical processing range has been the new Art. EG Arrissing Machine, which





will also be demonstrated at this year's Glasstec. It can now manage both ar- rissing and coarse edge grinding to meet the constant and progressive demand from the construction industry to flat edge grind laminated glass. Several features have been added to guarantee correct support, stability and positioning of the glass sheet that now allows for the quality application of this process.

PROFILE BENDER: FURTHER IMPORTANT UPDATES

Further enhancements in the box spacer profile

involve the Art. PB automatic profile bender, which is equipped with the revolutionary Smart Arm - a stability device to support the profile during bending that avoids micro fractures at the corners. This ancillary module will be presented and demonstrated with an interesting software update that simplifies the user interface to facilitate a more intuitive interaction during set-up.

IN SUM

As ever, entering the Forel stand at Glasstec has been conceived to offer an all-round immersive experience, detailing the latest innovations in both thermoplastic

spacer and vertical edge processing automation. The configuration of the Insulated Glass Unit line and all other machine modules will give visitors a first-hand experience of the glass factory of the future. Such Forel expos are the result of months of collaborative planning by the entire Forel team. Indeed, show attendees can expect to attend daily scheduled, live demonstrations - all while taking the occasion to learn more from industry experts and enjoying Forel's legendary hospitality. Visitors will have no shortage of opportunities to visit Forel at stand D13/D17 in

Hall 16 - experiencing the knowledge, advice and professionalism of the entire Forel team. In 2024, Forel aims to show itself as not just one more machinery manufacturer but a working philosophy that's based upon commitment, investment and innovation - all as joint creator, with its customers, of the factories of the future.



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