

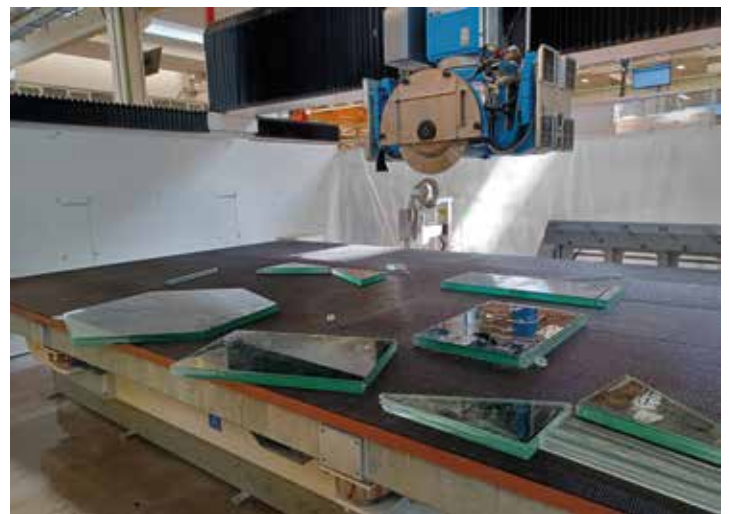
# Bulletproof and fire-resistant glass becomes more controllable with CMS

**B**ulletproof and fire-resistant glass is among the most demanding products in bulletproof and fire-resistant glass fabrication. It is increasingly specified for architectural, security and industrial applications, where strict performance requirements leave no margin for process variability or inconsistent quality. Multilayer structures, thick glass sections, and sensitive interlayers or coatings all raise the risk of

defects during cutting and machining. Even small deviations in processing can compromise the finished product, resulting in scrap, reworking, or, in the worst case, loss of certification.

## **MATERIAL SENSITIVITY**

Fire-resistant glass presents an even more critical challenge. Its intermediate layers, often based on flame-retardant gels or intumescent materials,



Bulletproof and fire-resistant glass fabrication demands precision, stable processing and careful control of sensitive materials. CMS technology helps manufacturers manage these challenges through advanced cutting and machining solutions that improve edge quality, reduce handling, limit scrap and reworking, and support reliable performance in demanding applications.

are particularly sensitive to environmental conditions, especially moisture. A carefully controlled drying phase after fabrication is therefore essential to prevent interlayer degradation and to ensure that the glass retains its declared fire-resistance performance over time. Thick laminated glass is still generally cut in straight lines using vertical panel saws. While effective for basic formats, this approach becomes restrictive when more complex shapes or controlled edge quality are required. Ad-

ditional operations such as chamfering, seaming and edge finishing then become necessary, adding handling steps, extending processing time and increasing overall production complexity.

### CUTTING CONTROL

In this context, advanced technologies are needed to manage complexity while maintaining precision, process reliability and consistent quality. CMS Glass Technology addresses these requirements with solutions developed for the specific demands of bulletproof



and fire-resistant glass fabrication. CMS sprint is designed to optimise cutting operations in laminated, fire-resistant and safety glass production lines, where productivity and repeatability are essential. It can process square, rectangular and polygonal sheets, carrying out vertical cuts as well as 45° angle cuts to meet the typical requirements of security and architectural glazing. An integrated vacuum manipulator automatically



regular, controlled edges and precise chamfers, a fundamental requirement in bulletproof and fire-resistant glass, where edge defects can cause delamination or stress concentration. With high axis dynamics, CMS electa performs shaping, grinding, polishing, drilling and milling on a single platform. This allows manufacturers to process complex shapes, reduce intermediate handling and adapt production to small batches or customised projects. The result is higher edge quality, less scrap and reworking, improved process reliability and stronger overall productivity, even with the most demanding laminated glass configurations.



**BEFORE**

separates and relocates the cut sections, eliminating manual intervention and significantly improving operator safety when handling heavy, thick laminated glass, while also supporting greater efficiency and work-flow stability.

### EDGE QUALITY

Where higher edge quality and complex profiling are required, the CMS electa machining centre is intended to overcome the limitations of traditional machining systems. It enables the creation of



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# High TEMPERATURE GASKETS



**Texpack srl is a manufacturer of various products for the protective coating of rolling rollers in tempering furnaces in the flat glass industry and conveyor belts. For example:**

## **1200N Aramtex® discontinuous filament tapes**

Aramtex® tapes are produced using 100% pure paraaramid yarns with discontinuous filaments, which are usually woven in several layers.



## **1210N Aramtex® continuous filament tapes**

Aramtex® tapes are produced using 100% pure paraaramidic yarns with continuous filaments, that are usually woven in several layers,



**Texpack also produce textiles for the glass industry: roller coatings for tempering furnaces in flat glass production, as well as coverings for molding dies or handling clamps for hot glass.**

## **1200C Aramtex® discontinuous filament sleeve**

The Aramtex® sleeve is produced using 100% pure aramid yarns with discontinuous filaments that provide it with greater softness and good mechanical resistance at a lower cost compared to sleeves made with continuous filaments.



## **1210C Aramtex® continuous filament sleeve**

The Aramtex® sleeve is produced using 100% pure aramid yarns with continuous filaments that give it better mechanical properties than discontinuous filament sleeves.

# TEXPACK®

