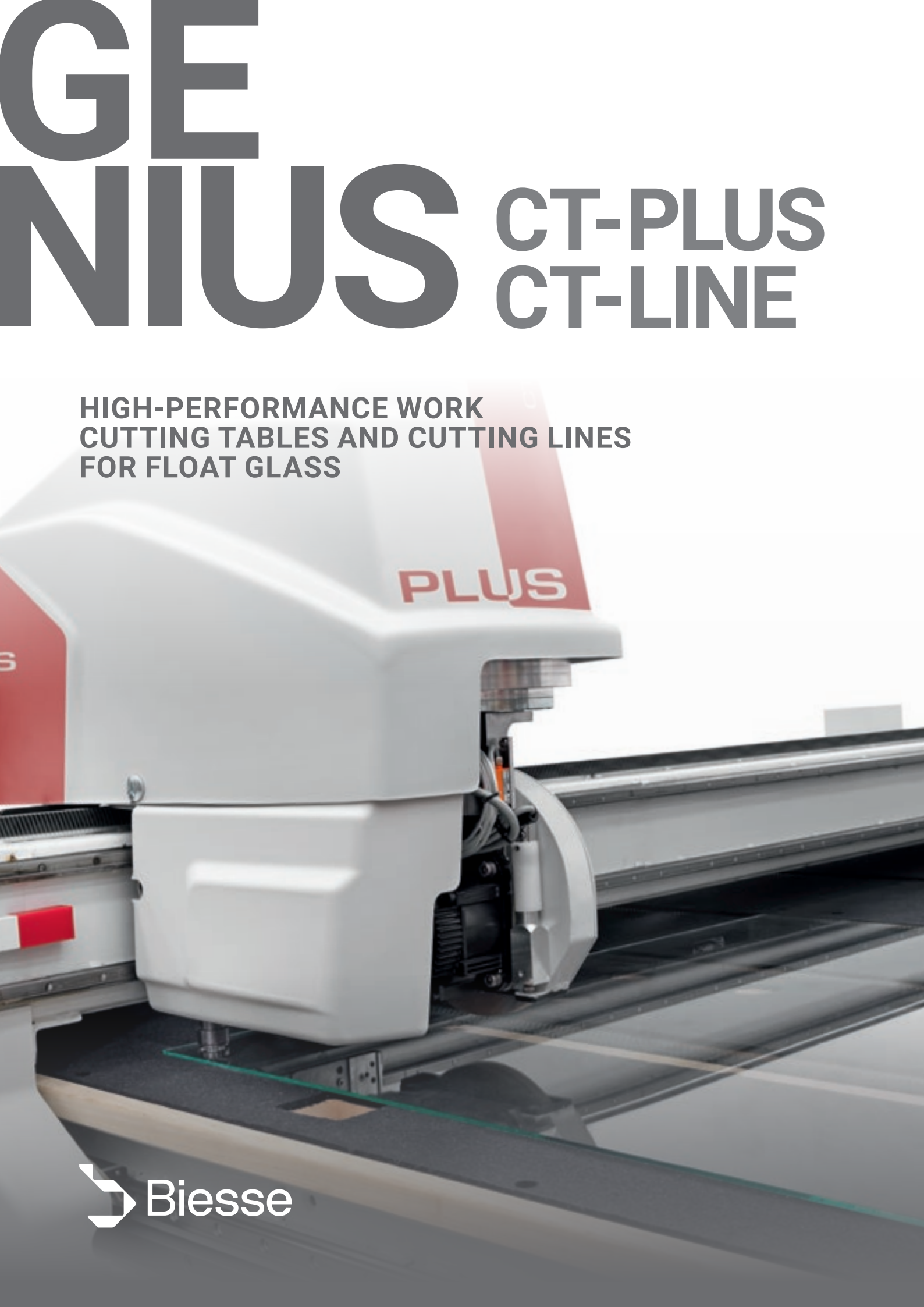
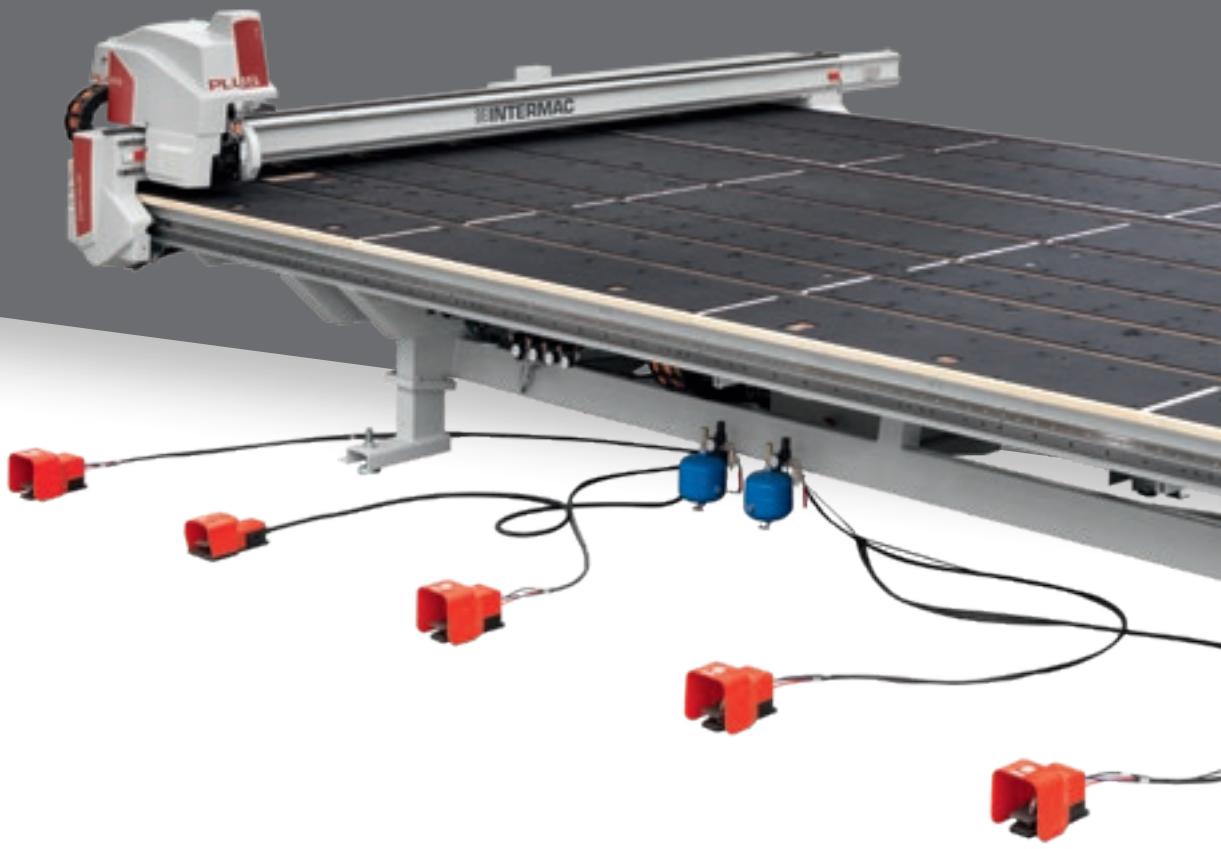
GE
NIUS CT-PLUS
CT-LINE

HIGH-PERFORMANCE WORK CUTTING TABLES AND CUTTING LINES FOR FLOAT GLASS



Biesse

DUAL TECHNOLOGY INTEGRATED IN A SINGLE MACHINE



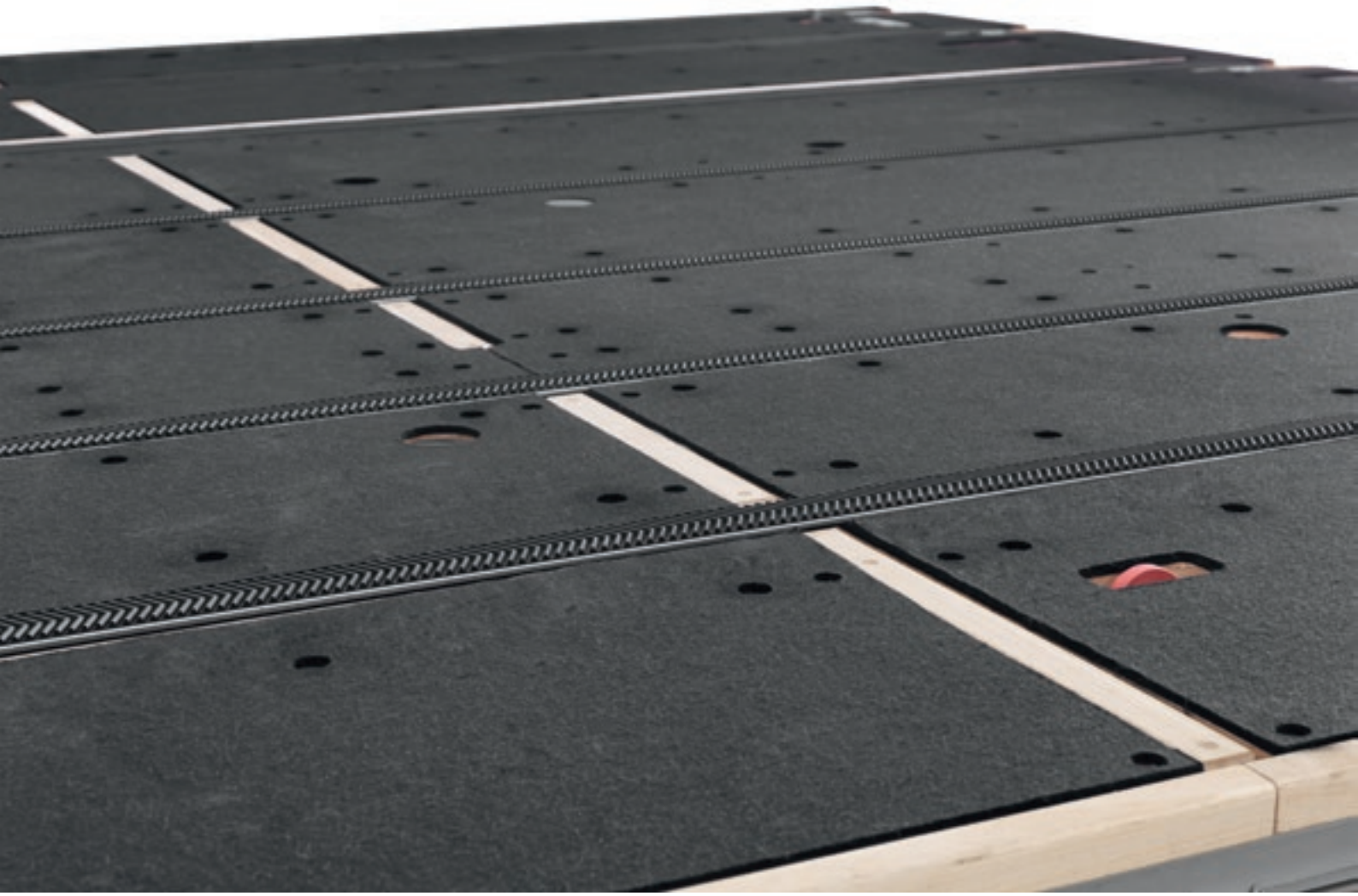
Genius CT-Plus is the range of cutting tables for float glass particularly suited to extremely high performance lines. Thanks to the option of being able to integrate the breakout bars with the transport belts, the Genius CT-Plus guarantees maximum productivity and optimisation of the cutting process in small spaces, allowing for handling and breakout to take place on a single work bench without having to resort to the use of service tables.

GENIUS CT-PLUS

- MAXIMUM PRODUCTIVITY AND OPTIMISATION OF PROCESSES THANKS TO HANDLING AND BREAKOUT ON A SINGLE WORK BENCH
- REDUCED SIZES FOR COMPANIES WITH LIMITED SPACE, PERFECT FOR SHORT LINES WITH PRE-EXISTING GENIUS CT-LINE LOADS
- EASY TO INTEGRATE WITH AUTOMATIC LOADING SYSTEMS

TECHNOLOGY AND PERFORMANCE THANKS TO THE COMBINATION OF BELTS AND BARS

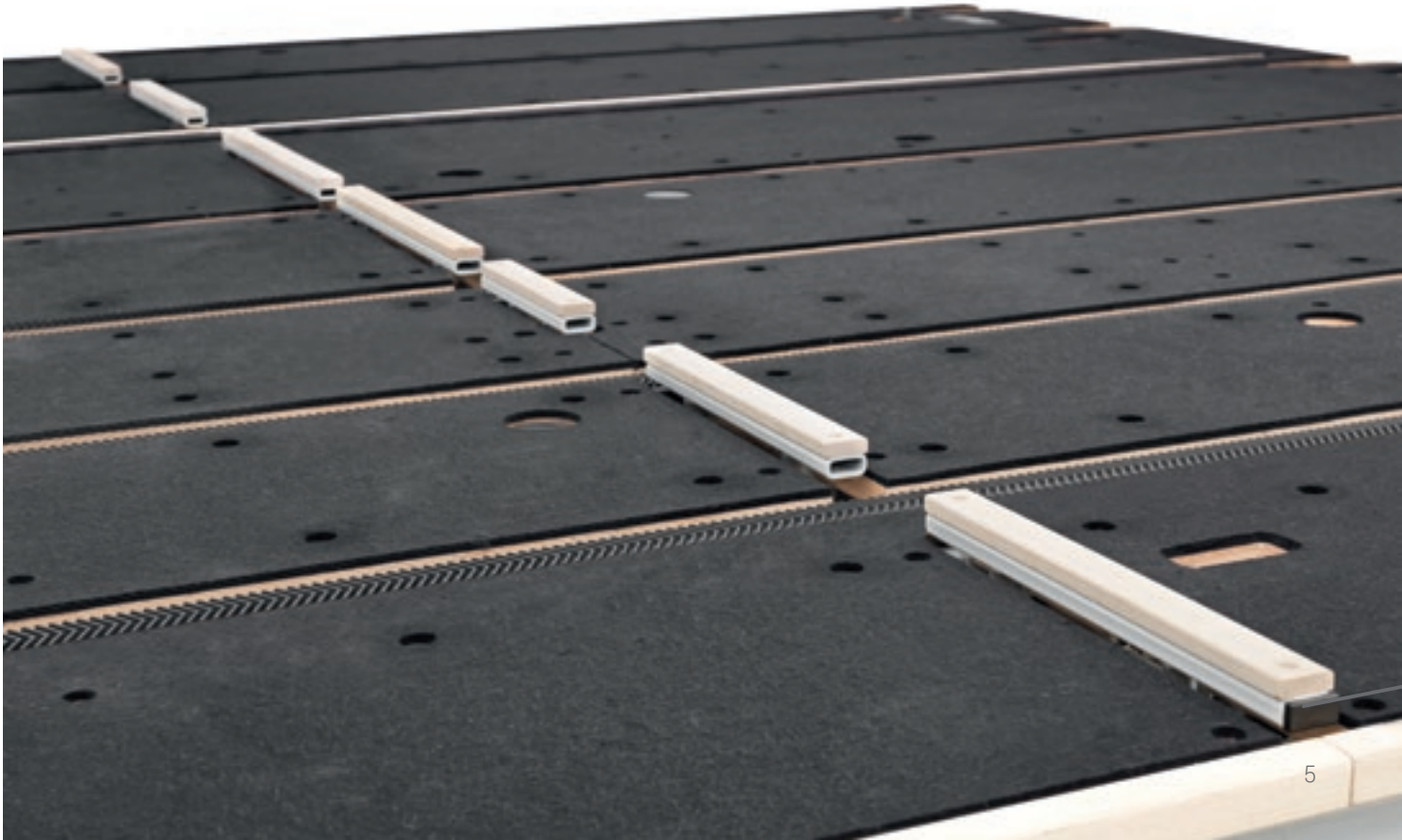
The range of Genius CT-Plus cutting tables is perfect for the most demanding glassworks, which require heightened performance in order to sustain elevated production loads.



BREAKOUT AND HANDLING OF GLASS ON A SINGLE WORK TABLE: A COMPACT SOLUTION FOR SMALL SPACES.

The integrated belt system makes it possible to easily move the sheet along the production line.

The additional bar system, which can be integrated with the belt system, makes it possible to easily perform the breakout of the glass.



GUARANTEED RELIABILITY OVER TIME

Maximum performance and precision thanks to the planarity of the ground work table.

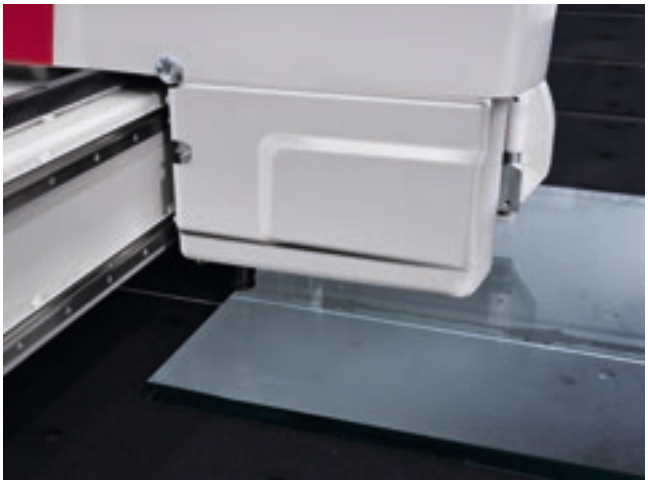
The base of the machine is made from a rigid, rectangular structure onto which ground wood panels are attached, ensuring maximum planarity of the working area, essential for optimal glass grooving and break-out operations.

- Acceleration 10m/sec²
- Speed 200 m/min.
- Precision of cut +/-0.15 mm/m.

MAXIMUM QUALITY OF MACHINING OPERATIONS AND RESULTS

Automatic tool change.

The roller-holder cones allow the cutting tools to be changed automatically.



CUTTING LUBRICATION
The delivery of lubricant oil is managed electronically, and occurs in line with the speed of execution of the shape and the specific straight cutting requirements, eliminating waste and simultaneously improving machining results. Precise oil stream dosing with no "drop" effect.

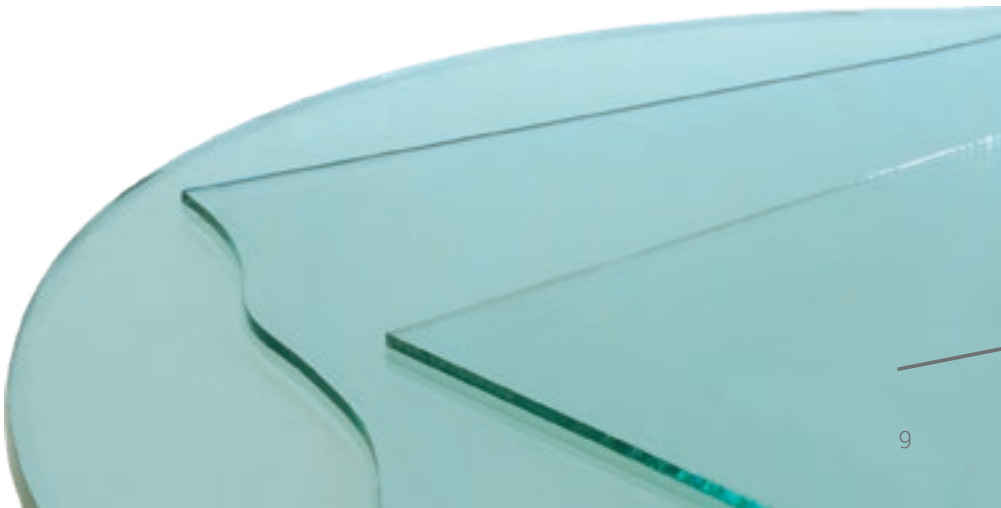
The automatic tool magazine with 6 positions is an Biesse technology that makes it possible to perform various cuts on the same sheet using the most suitable tool at all times, thus substantially improving the quality of the final result.

THE ENTIRE GENIUS RANGE IS CONCEIVED FOR CUTTING LINES THAT PROCESS LARGE VOLUMES IN TWO OR THREE SHIFTS.

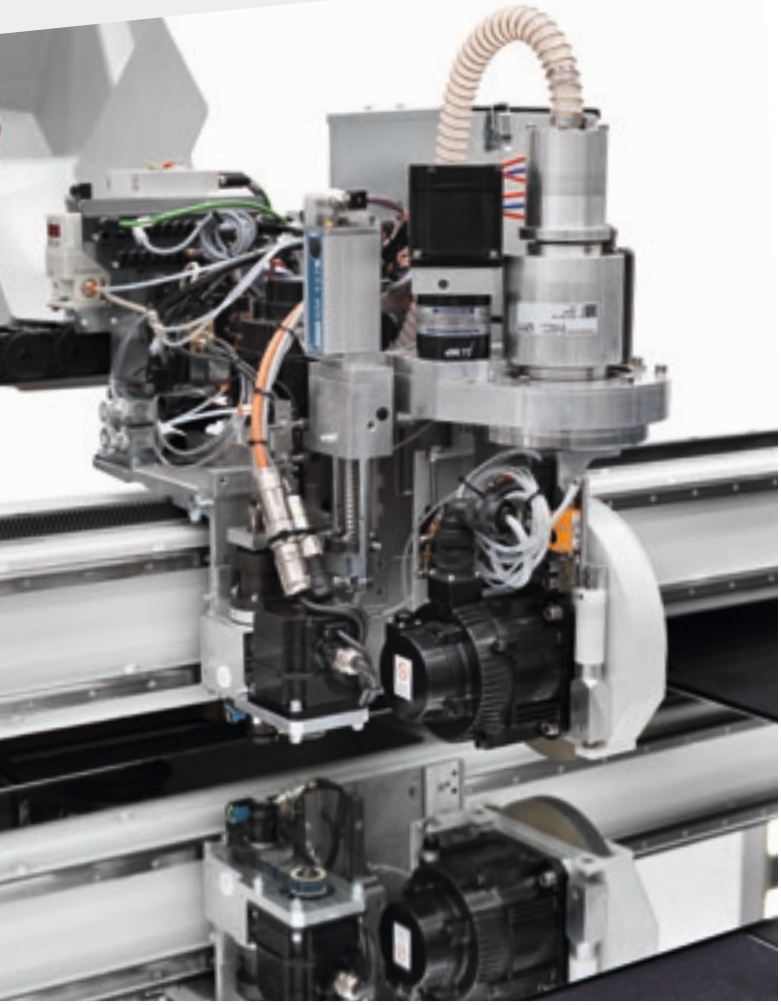
VINYL CUTTING
The Genius CT-PLUS cutting tables guarantee excellent quality of machining operations for the cutting of vinyl as well.

The cutting quality is guaranteed by the proportional electro-pneumatic control system that enables the power/ speed ratio to be measured correctly.

The Genius cutting table ensures that materials are fully optimised, significantly reducing waste.



REDUCED CYCLE TIMES

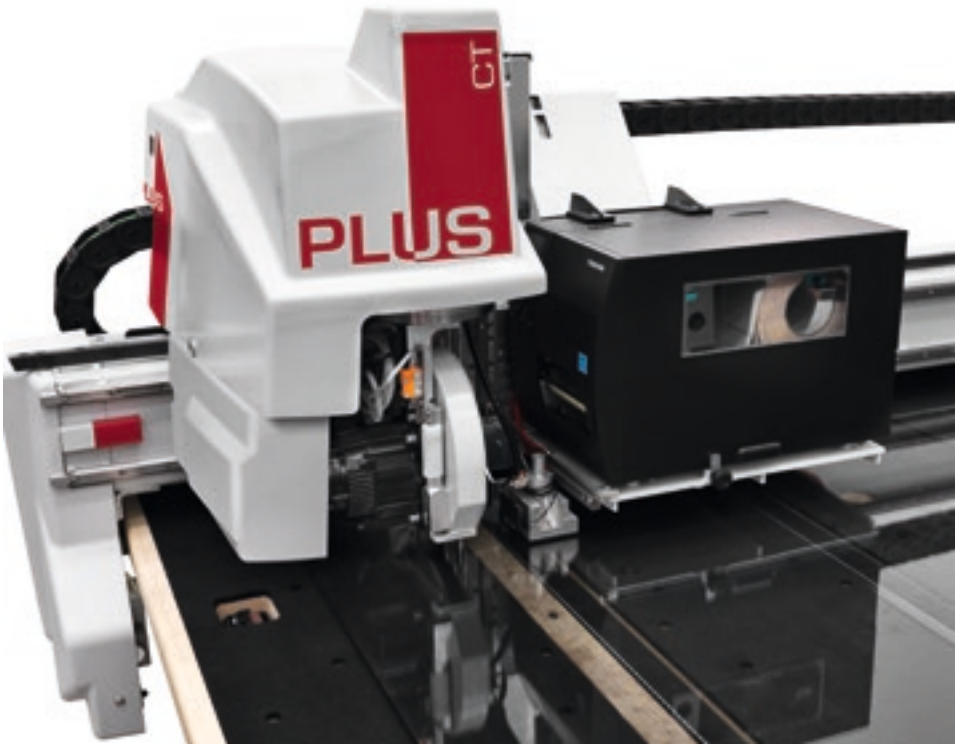


The PC-managed axle speed and the high quality of all of the electronic and mechanical components enable machining times to be optimised, ensuring flexible, dynamic production.

The working head is equipped with an automatic cutting pressure management mechanism that enables the force exerted by the wheel to be adjusted correctly, from the beginning to the end of the cutting operation.

The working head is equipped with a laser reader that automatically detects the position of the sheet on the work table and also acts as a double zero for cutting laminated glass. In addition, it can be used for digitalising templates and models positioned on the work table.

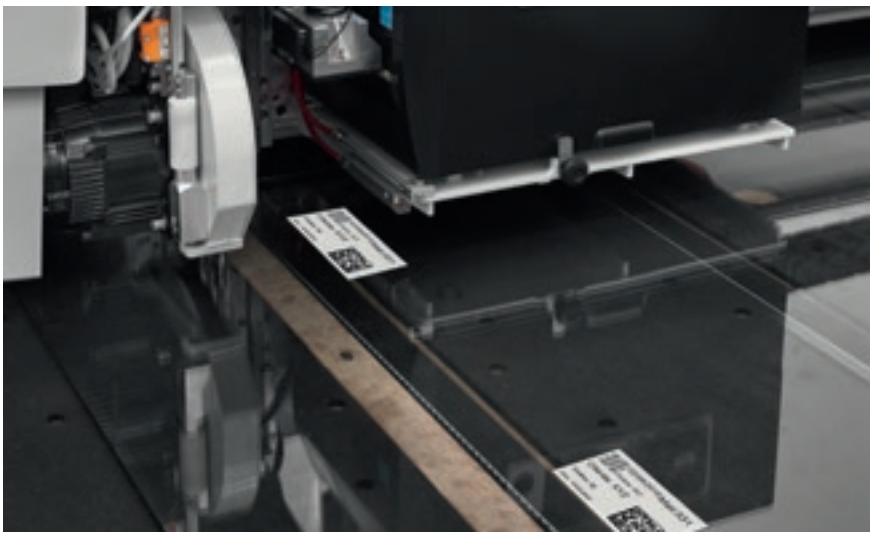
MAXIMUM PRODUCTIVITY



Genius CT-PLUS offers a complete range of hi-tech devices which allow for maximum productivity along the cutting line.

A digital printer (600 dpi) mounted on an independent carriage for automatic label application helps to guarantee maximum cutting performance.

Standard label 100x70mm.
Available labels 100x100 mm.



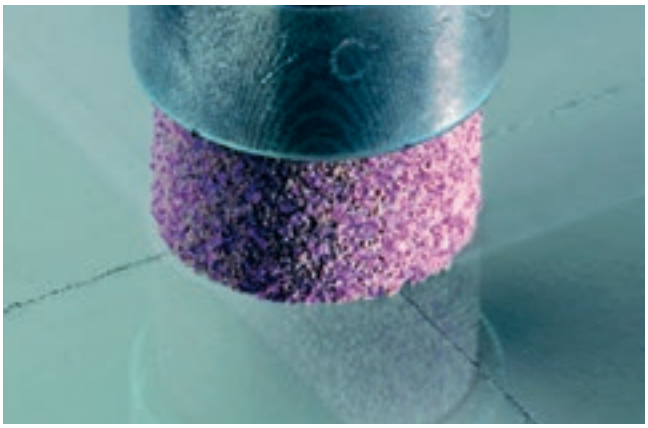
Automatic system for applying labels on the surface of the glass.
Compatible with all glass thicknesses and types.

Customisable label containing information that is useful in the production processes typical of glassworks companies.

DEDICATED TECHNOLOGIES FOR EVERY REQUIREMENT

Genius CT-PLUS is capable of performing Low-E removal thanks to specially designed optional devices for each specific manufacturing need.

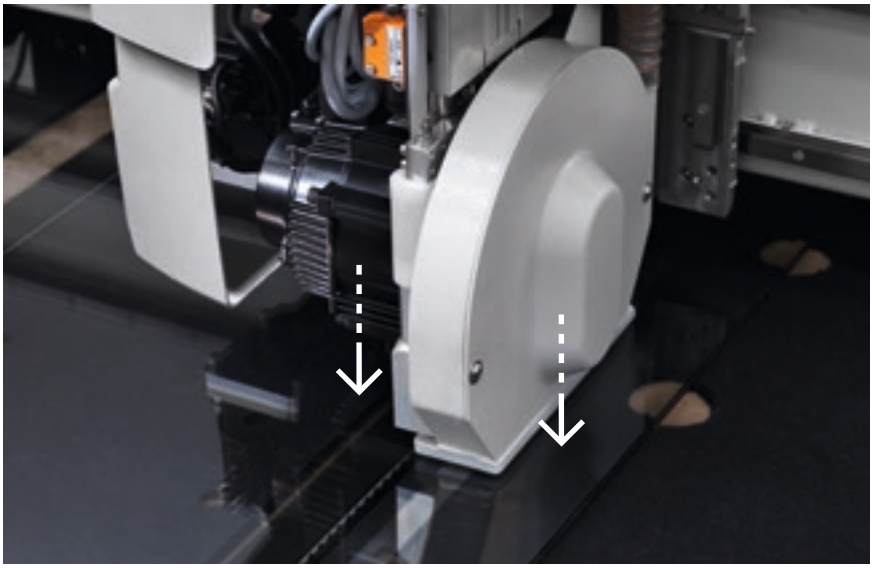
LOW-E REMOVAL



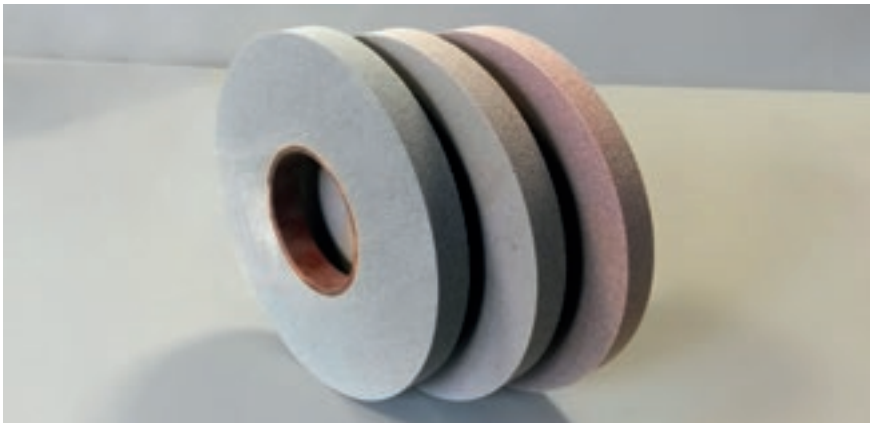
ALTERNATIVE TOOL
20mm hollow grinding wheel for abrasive material.

BCR (BRUSH COATING REMOVAL) DEVICE
For removal of low-emissivity film via a motorised metal brush, with adjustable consumption recovery. Standard removal of 20mm width.

TCR DEVICE
(TANGENTIAL COATING REMOVER)
for removing the low emissivity film with a 200 mm-diameter abrasive grinding wheel. Ensures top productivity and a long lifespan.



CONSTANT, MAXIMUM QUALITY REMOVAL
thanks to:
- Hood positioning at 1 mm from the glass surface, with automatic grinding wheel wear compensation
- Suction device with a residue collection tank on the cutting carriage.
- Enhanced suction available for treating special protective materials.

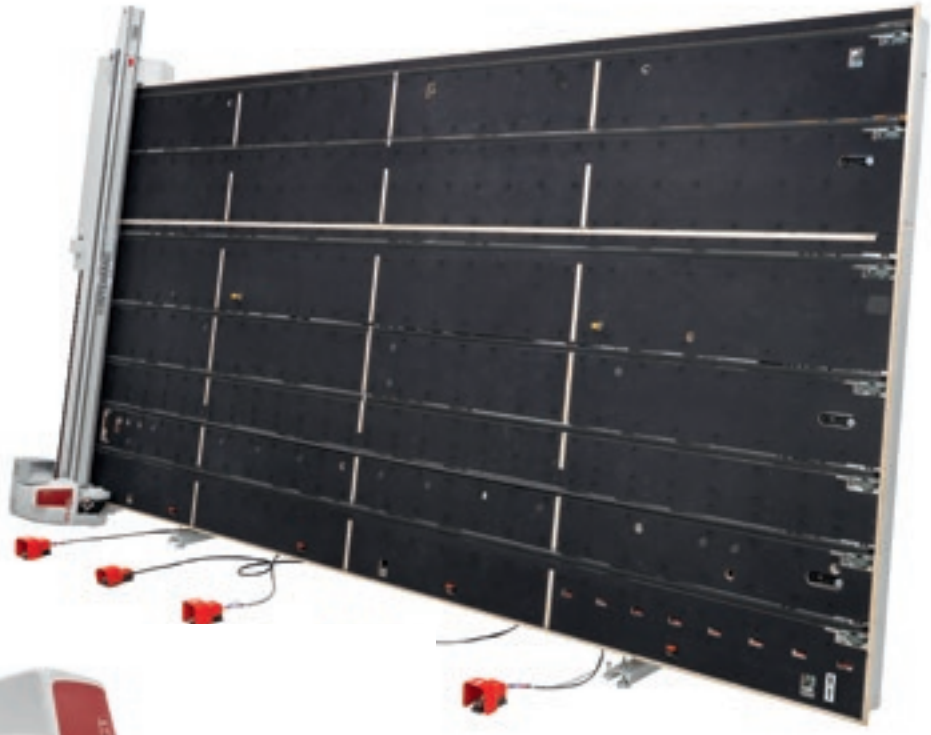


Compatible with 20 mm thick grinding wheels measuring 200 mm in diameter of varying types depending on the characteristics of the Low-E.

Rectification of the TCR grinding wheel.

ERGONOMICS AND FACILITATED HANDLING

Smooth, even tilting of the table enables large sheets to be loaded.



The automatic feet support the sheet while the table is tilting, acting as mechanical sheet aligners when necessary.

PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

One indispensable condition for obtaining any sort of financing is the respect of the machinery directives and workplace health and safety regulations.

Biesse has always paid the utmost attention to the health and safety of its customers. The protection of every operator during the use of the machine is of vital importance, preventing any possible distraction or error that could lead to inconvenience or even accidents.

COMBY PLUS

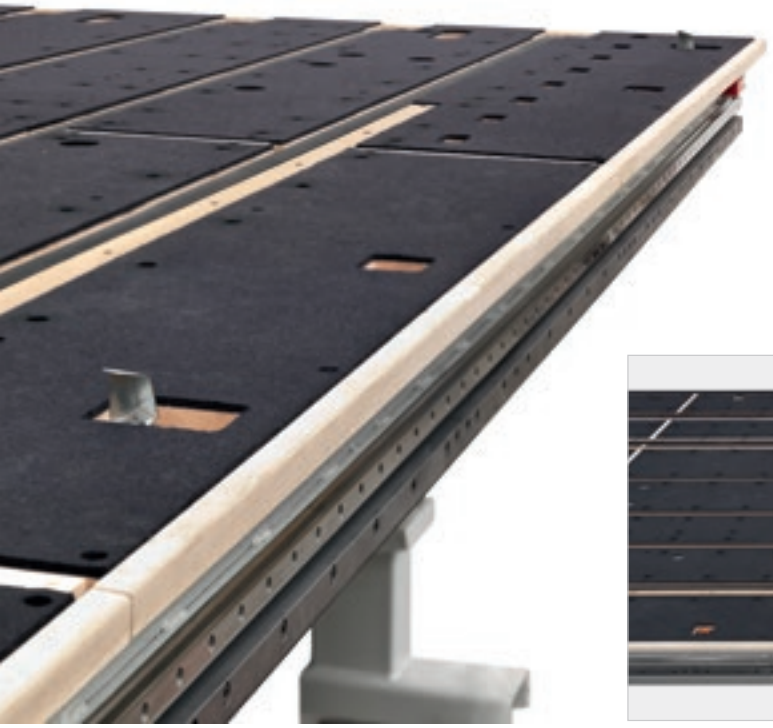
BIESSE TECHNOLOGY

The Comby PLUS are high productivity lines which are integrated into small spaces for the cutting of both float and laminated glass, and are the product of the intelligent combination of the Genius CT-PLUS cutting table (for cutting float glass) and the Genius LM-A cutting table (for cutting laminated glass).

INTELLIGENT COMBINATIONS

The CombyPlus Lines represent the perfect integration of the two float/laminated cutting tables which guarantee high productivity in small spaces thanks to the addition of:

- patented vertical buffer on float table
- belts on laminate cutting module
- manual break-out on float glass
- addition of break-out bars integrated with the belts possible.

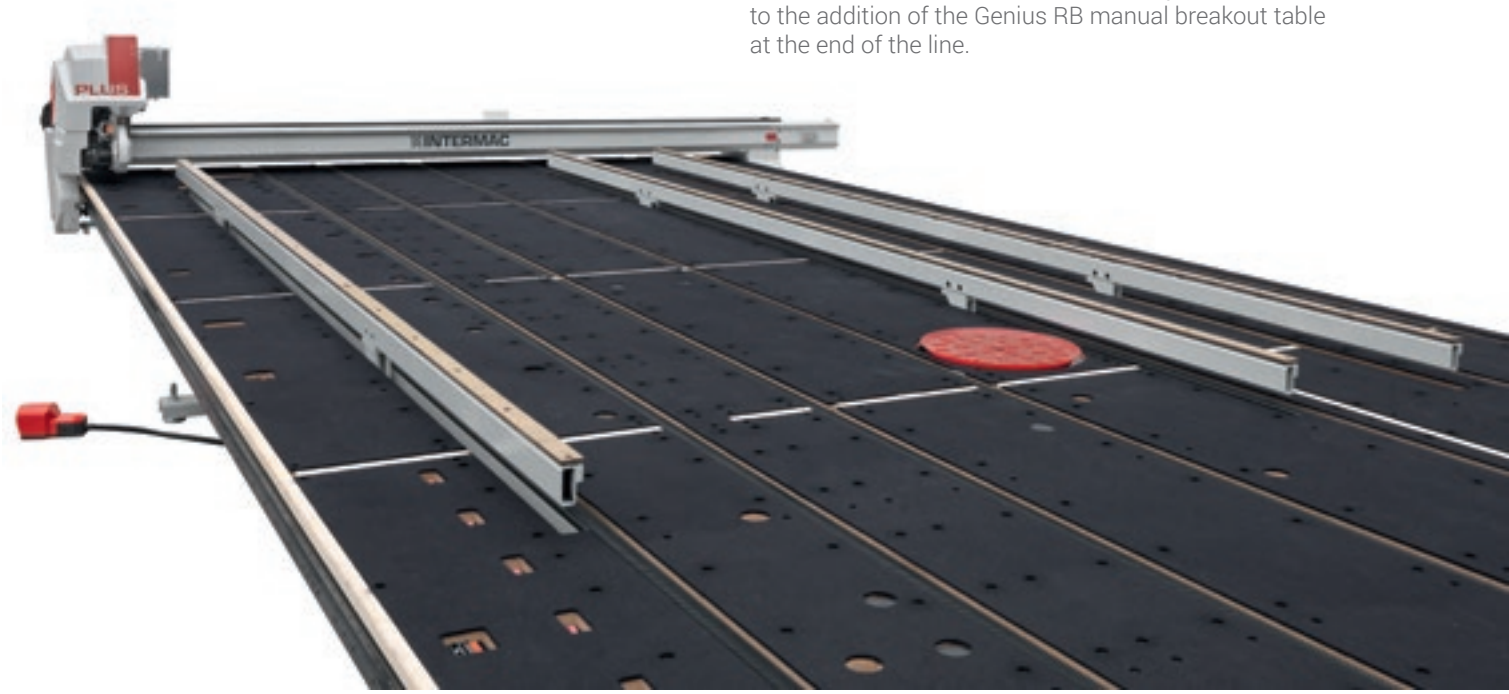


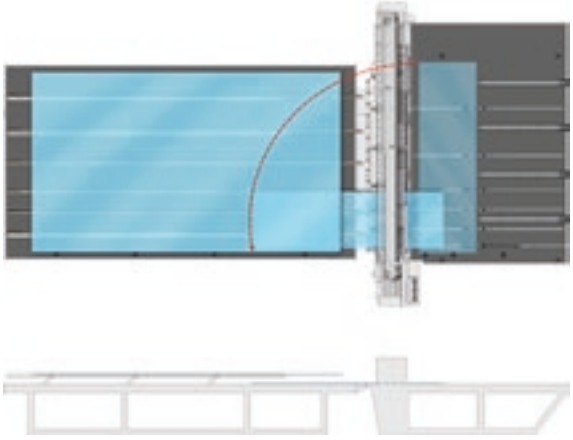
AUTOMATIC REMOVAL OF PVB

SHEET ROTATOR

OPTIMISATION OF SPACE WITHOUT COMPROMISING ON PRODUCTIVITY

- Maximum automation of processes, enabling high volumes of laminated glass to be produced during every shift, within a limited space.
- The movement of the glass is automated.
- The chance to perform static X breakout on float glass.
- The chance to increase float productivity thanks to the addition of the Genius RB manual breakout table at the end of the line.

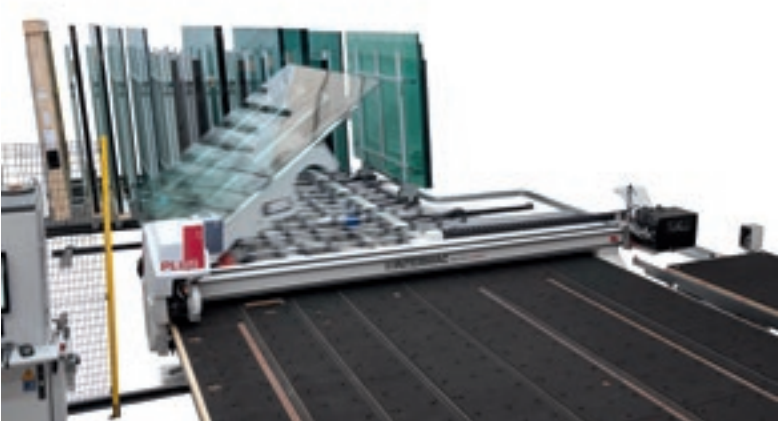




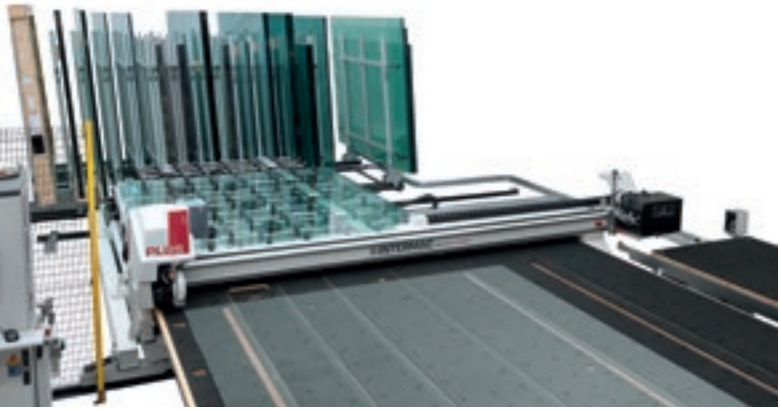
VERTICAL BUFFER

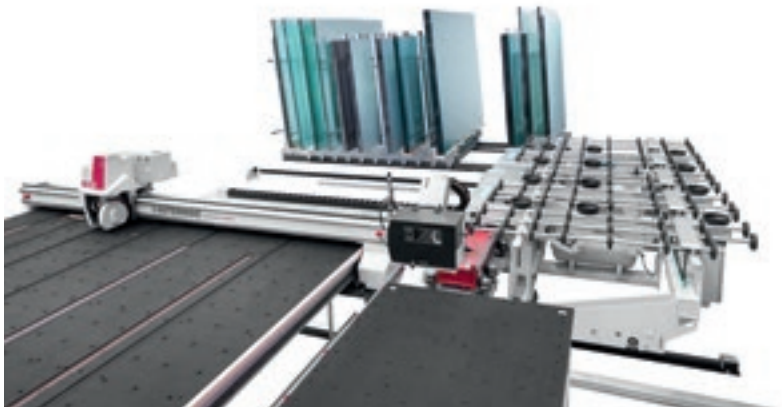
This patented solution serves to lift the remains of the sheet, enabling the crosspiece to be positioned underneath so that Y-Z-W cuts can be performed. Significant reductions in overall dimensions, without compromising productivity.

HEIGHTENED PERFORMANCE THANKS TO PERFECT INTEGRABILITY ALONG THE LINE

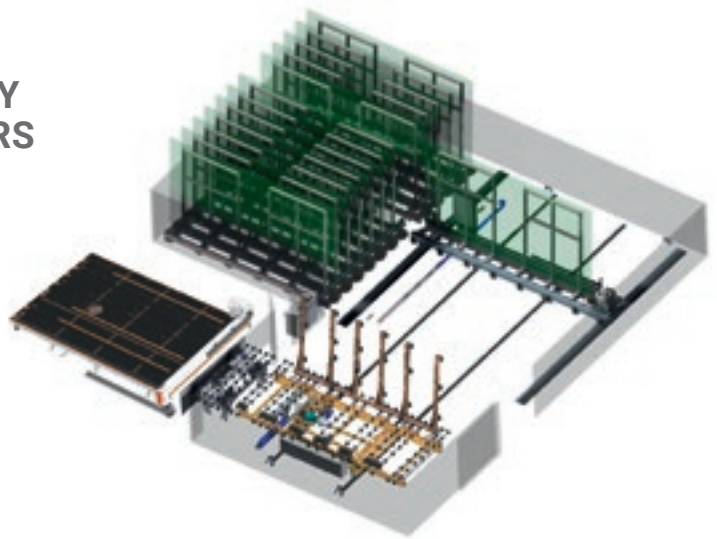


The stand-alone solutions or those along the automated line are managed by software that optimises the processes and are applied to a complete range of machinery that includes the Movetro intelligent storage and handling systems integrated with the range of Biesse Genius cutting tables.



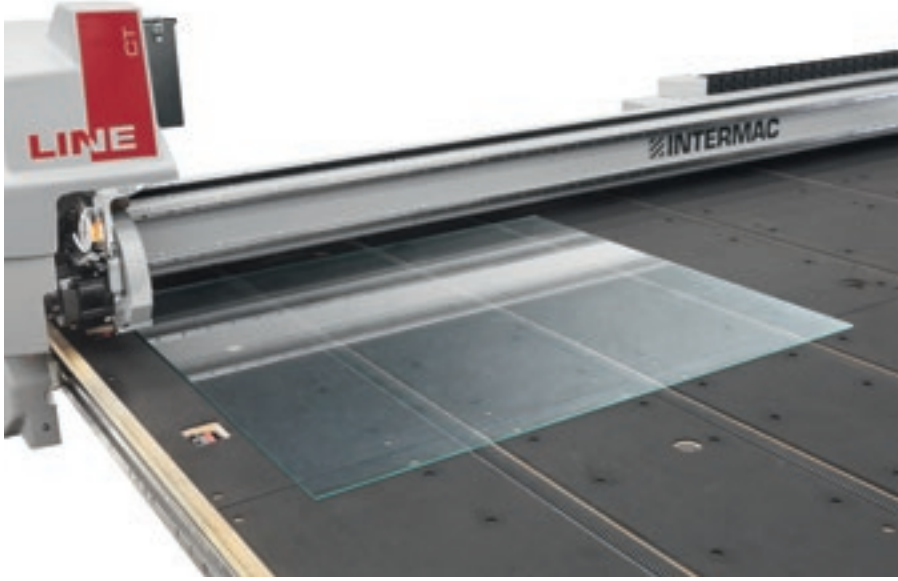


BIESSE GLASS MACHINING TECHNOLOGIES INCORPORATE THE KEY CONCEPTS OF INDUSTRY 4.0, PROPELLING OUR CUSTOMERS INTO THE ERA OF DIGITAL MANUFACTURING



ABSOLUTE FLEXIBILITY FOR THE MACHINING LINE

The Genius CT-LINE is a cutting table with belts, designed to boost performance in line or plant configurations that call for the integration of automated loading and a break-out table.



ST SERVICE TABLES

The Genius ST tables are designed to be used alongside lines for break-out and volume unloading operations.

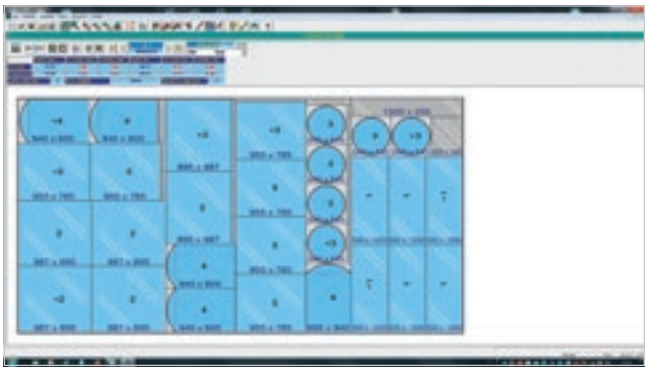
Biesse can offer custom solutions in accordance with the specific needs and production specifications of customers.

MAXIMUM EASE OF USE

The operator interface is simple, intuitive and compatible with the optimisers available on the market.

PC WNC-based numerical control system (WNC - Intermac Windows Numerical Control)

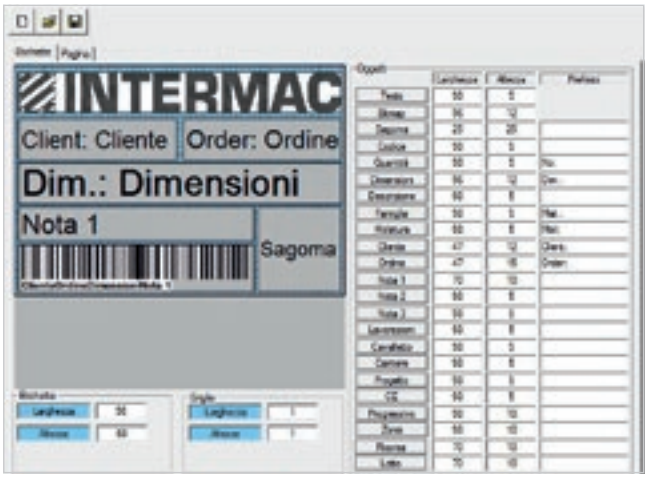
- Ideal both for those using CNC machines for the first time and operator who already have programming experience.
- Management of the working parameters of the machine.
- Creation and modification of cutting patterns and/or of geometric or non-geometric shapes.
- Modules for production report management.

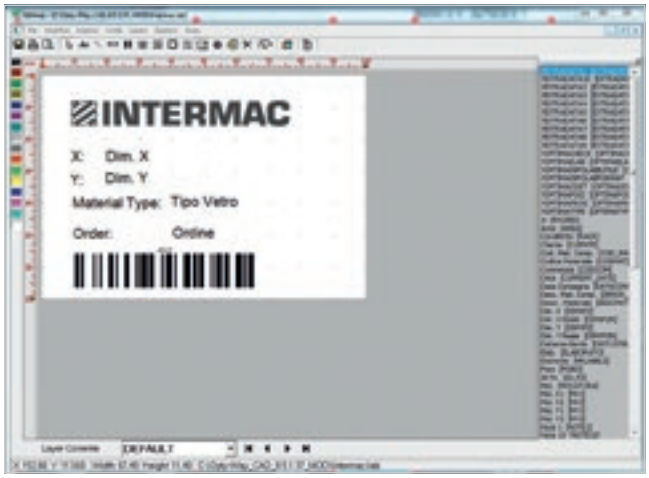


OPTIMISATION SOFTWARE

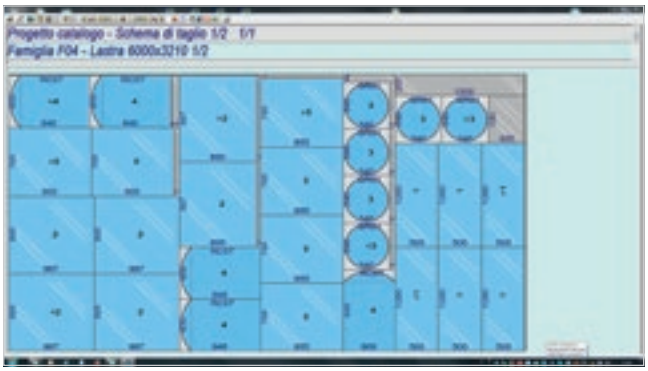
Optimiser for straight and shaped cuts, enabling the following advantages to be achieved:

- Minimises waste.
- Meets the production requirements of glassworks companies.
- Enhances the performance of the machine.





LABEL MANAGEMENT



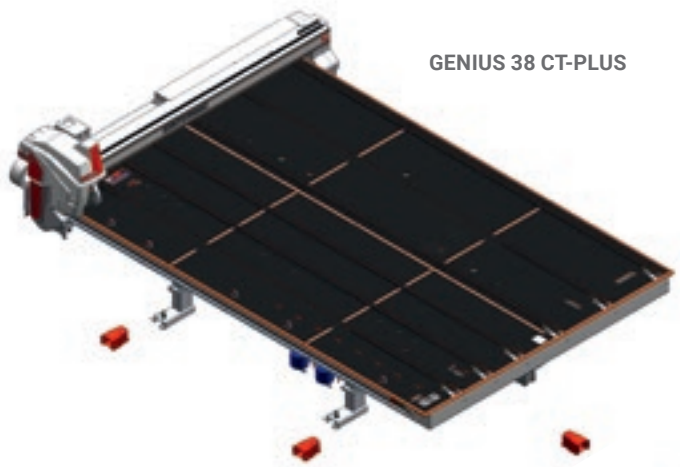
CUTTING PATTERN DISPLAY

- Cutting pattern displayed on monitor.
- Module for managing volumes at the end of the line.

TECHNICAL SPECIFICATIONS

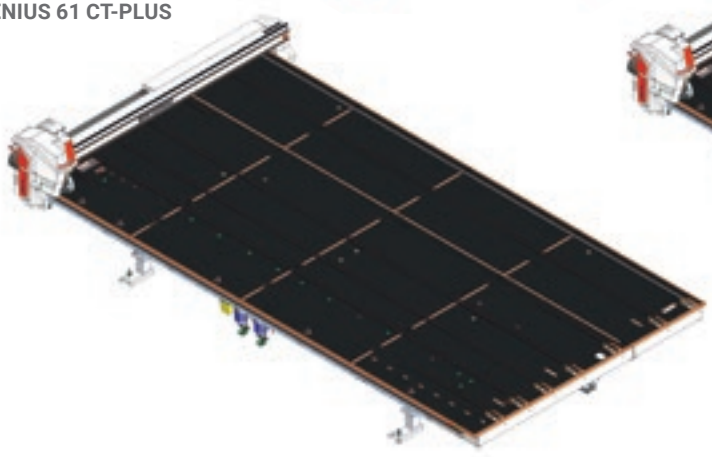
IN LINE CONFIGURATION

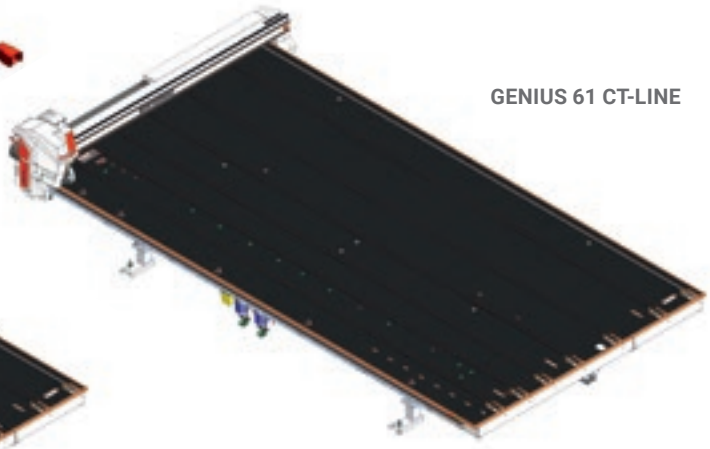
		38 CT-PLUS	GENIUS 61 CT-PLUS	GENIUS 61 CT-PLUS C
Machinable dimensions	mm	3810x2800	6100 x 3355	6100 x 3355
Machinable thickness	mm	2-19 (opz 25 mm)	2-19 (opz 25 mm)	2-19
Max axle movement speed	m/min	200	200	200
Max acceleration	m/sec²	10	10	10
Precision of cut according to specifications	mm/m	± 0,15	± 0,15	± 0,15
Straight and shaped optimisation (optional)		yes	yes	yes
Sheet transfer speed	m/min	40	40	40
Work table height	mm	900 (-15 / +40)	900 (-15 / +40)	900 (-15 / +40)
Installed power	kW	12 (13.2 Comby)	16.3 (20 Comby)	10.5 (opt air 16.3)
Overall weight	Kg	2500 (2850 Comby)	4150 (4500 Comby)	4150 (4500 Comby)



GENIUS 38 CT-PLUS

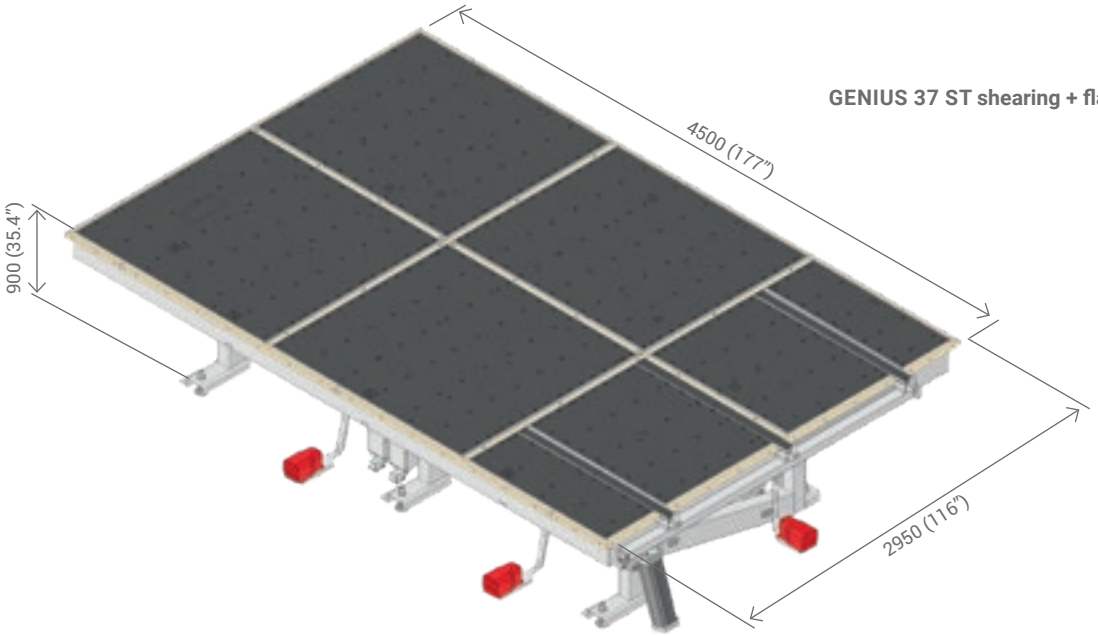
GENIUS 61 CT-PLUS



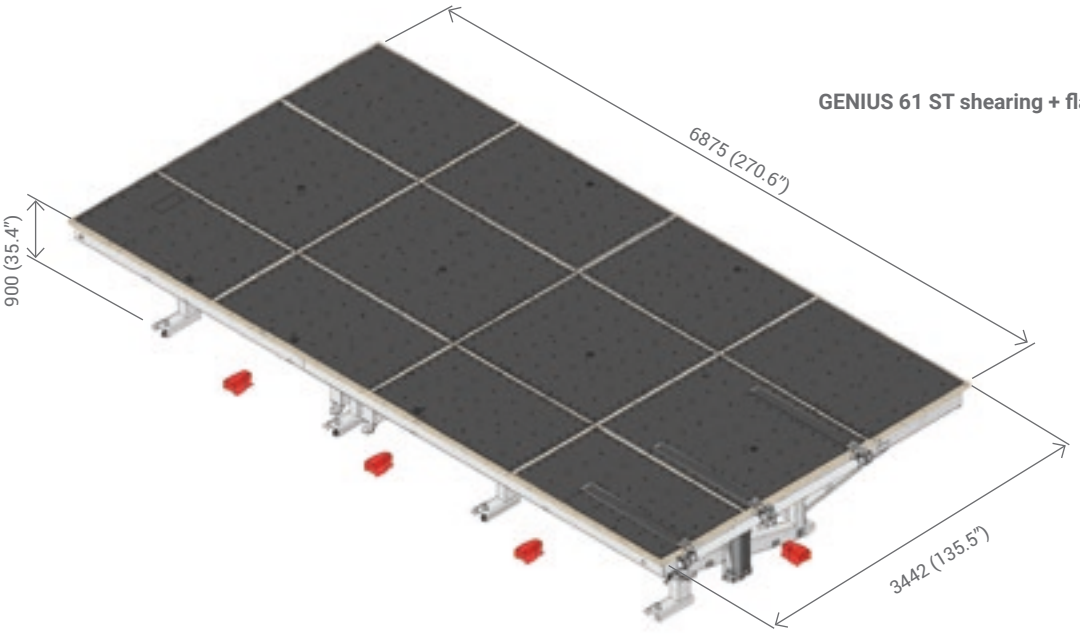


GENIUS 61 CT-LINE

GENIUS 37 ST shearing + flap



GENIUS 61 ST shearing + flap

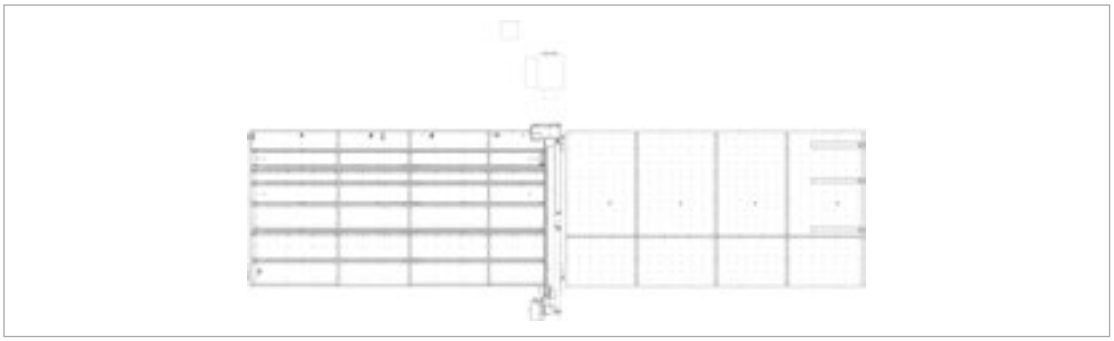


The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Biesse Spa reserves the right to carry out modifications without prior notice.

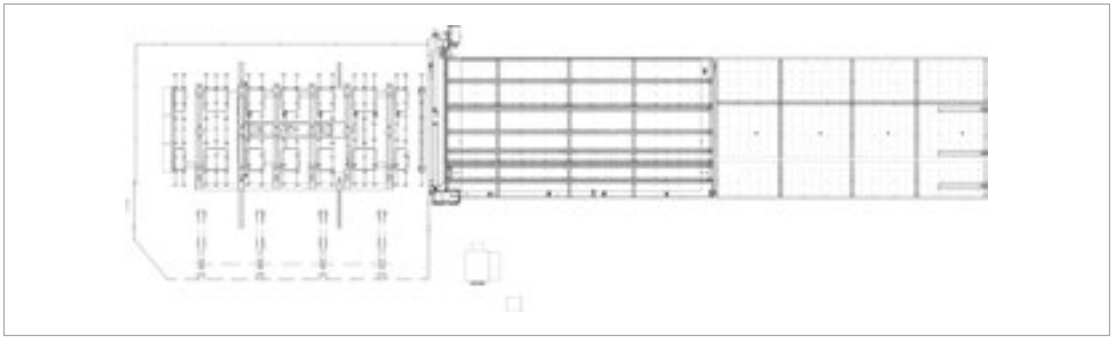
Weighted sound pressure level A (LpA). Operator workstation 87 dB (A). Maximum pressure of other workstations 88 dB (A). Genius CT PLUS. Uncertainty of measurement K = 4dB (A)

The measurement was carried out in compliance with UNI EN ISO 11202 and subsequent amendments. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Even though there is a relation between emission levels and exposure levels, this cannot be used reliably to establish whether or not further precautions are necessary. The factors determining the actual noise levels to which the operating personnel are exposed include the length of exposure, the characteristics of the work environment, other emission sources (e.g. the number of machines and machining operations nearby). At any rate, the above information allows the operator to better evaluate dangers and risks.

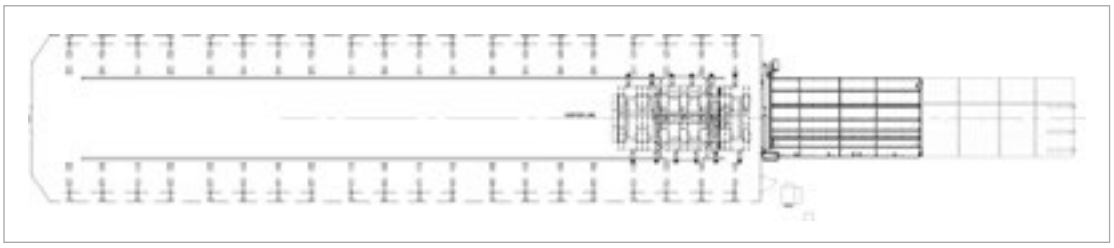
LINE EXAMPLES



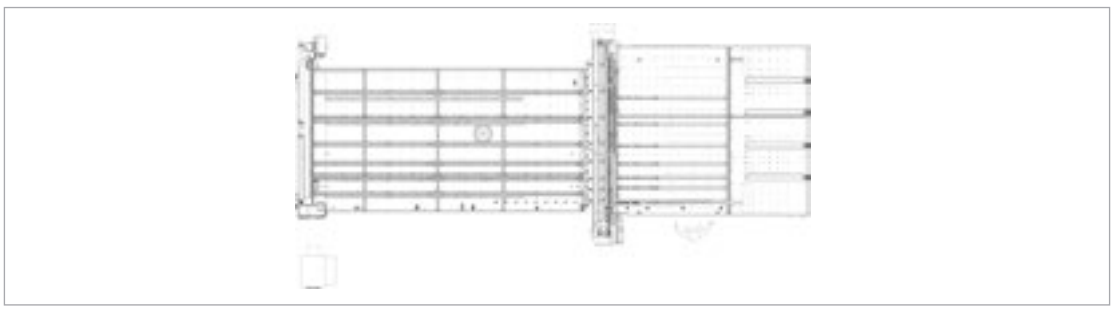
61 CT-PLUS belts / bars cutting table.



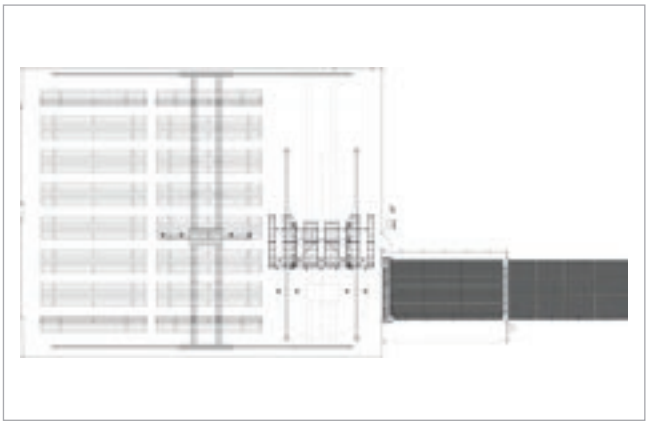
2 piece unilateral fixed Genius LS line + Genius CT-PLUS.



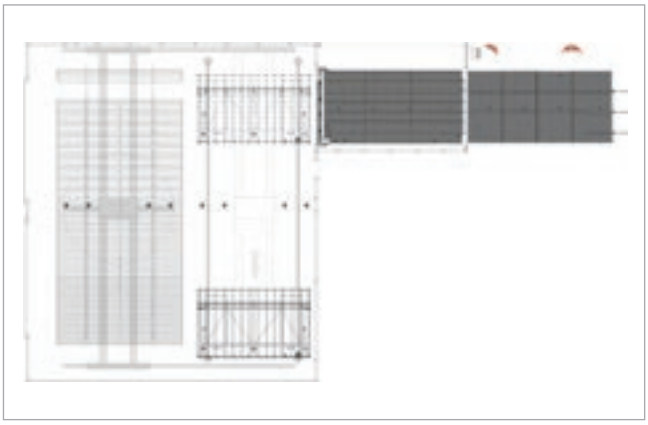
2 piece bilateral mobile Genius LS line + Genius CT-PLUS.

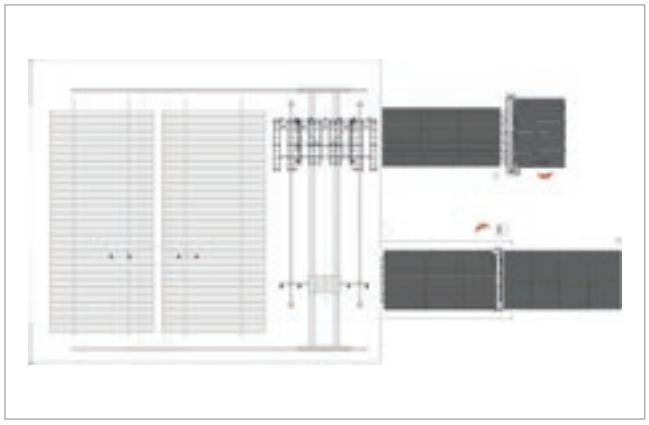


CombyPLUS J-A37.



System with Movetro overhead crane and fixed magazines with output onto float line





CUSTOMER CARE IS WHO WE ARE

SERVICES is a new experience for our customers, to offer not just excellent technology but the added value of an increasingly direct connection with the company, the professionals who work there and the experience they embody.

ADVANCED DIAGNOSTICS

Digital channels for remote interaction online 24/7. Always ready to intervene on-site seven days a week.

A WORLDWIDE NETWORK

39 branch offices, over 300 certified agents, retailers in 120 countries, and spare parts warehouses in America, Europe and the Far East.

SPARE PARTS AVAILABLE IMMEDIATELY

Identification, shipping and delivery of spare parts for every need.

EVOLVED TRAINING OPPORTUNITIES

Lots of on-site, online and classroom training modules for personalised growth.

VALUABLE SERVICES

A wide range of services and software packages to help our customers achieve continuous improvements in performance.

AN EXCELLENT LEVEL OF SERVICE

+550 HIGHLY SPECIALISED TECHNICIANS AROUND THE WORLD, READY TO HELP CUSTOMERS WITH EVERY NEED

+100 EXPERTS IN DIRECT CONTACT THROUGH REMOTE CONNECTIONS AND TELESERVICE

+50.000 ITEMS IN STOCK IN THE SPARE PARTS WAREHOUSES

80% OF SUPPORT REQUESTS SOLVED ONLINE

88% OF CASES SOLVED WITH THE FIRST ON-SITE VISIT

90% OF MACHINE DOWN CASES WITH RESPONSE TIME UNDER 1 HOUR

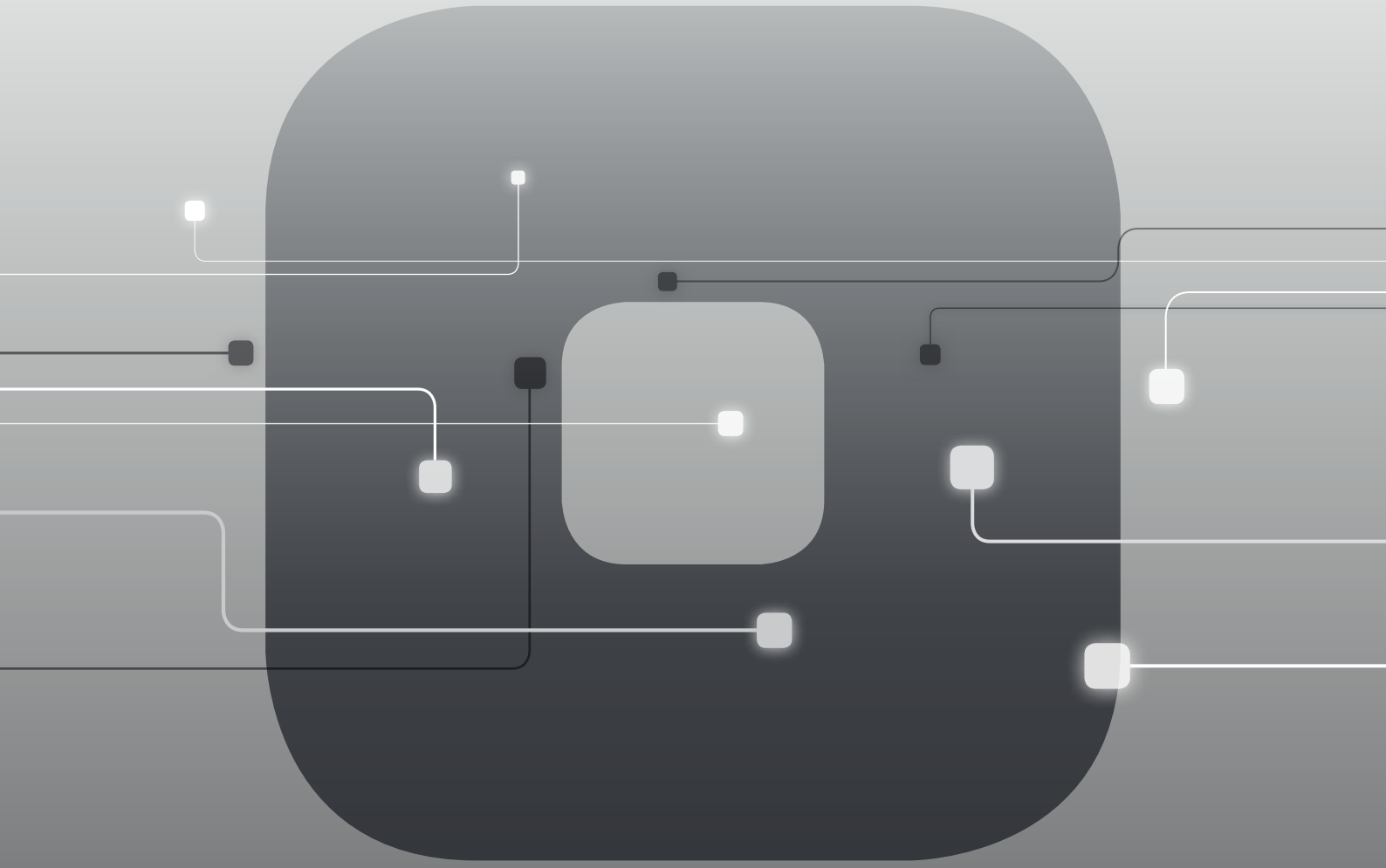
92% OF SPARE PARTS ORDERS FOR MACHINE DOWNTIME PROCESSED WITHIN 24 HOURS

+5.000 PREVENTIVE MAINTENANCE VISITS

96% OF SPARE PARTS ORDERS DELIVERED IN FULL ON TIME

SOPHIA

GREATER VALUE FROM MACHINES



SOPHIA is the IoT platform created by Biesse in collaboration with Accenture which enables its customers to access a wide range of services to streamline and rationalise their work management processes.

It allows alerts and indicators to be sent to the customer in real time, in relation to production, the machines used and the type of process carried out. These are detailed instructions for more efficient use of the machine.

- 10% CUT IN COSTS
- 50% REDUCTION IN MACHINE DOWNTIME
- 10% INCREASE IN PRODUCTIVITY
- 80% REDUCTION IN PROBLEM DIAGNOSTICS TIME

SOPHIA TAKES THE INTERACTION BETWEEN CUSTOMER AND SERVICE TO A HIGHER LEVEL.

IoT SOPHIA

IoT - SOPHIA provides a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention. The service includes a continuous connection with the control centre, the option of calling for assistance from within the customer app (such calls are managed as priorities), and an inspection visit for diagnostic and performance testing within the warranty period. Through SOPHIA, the customer receives priority technical assistance.

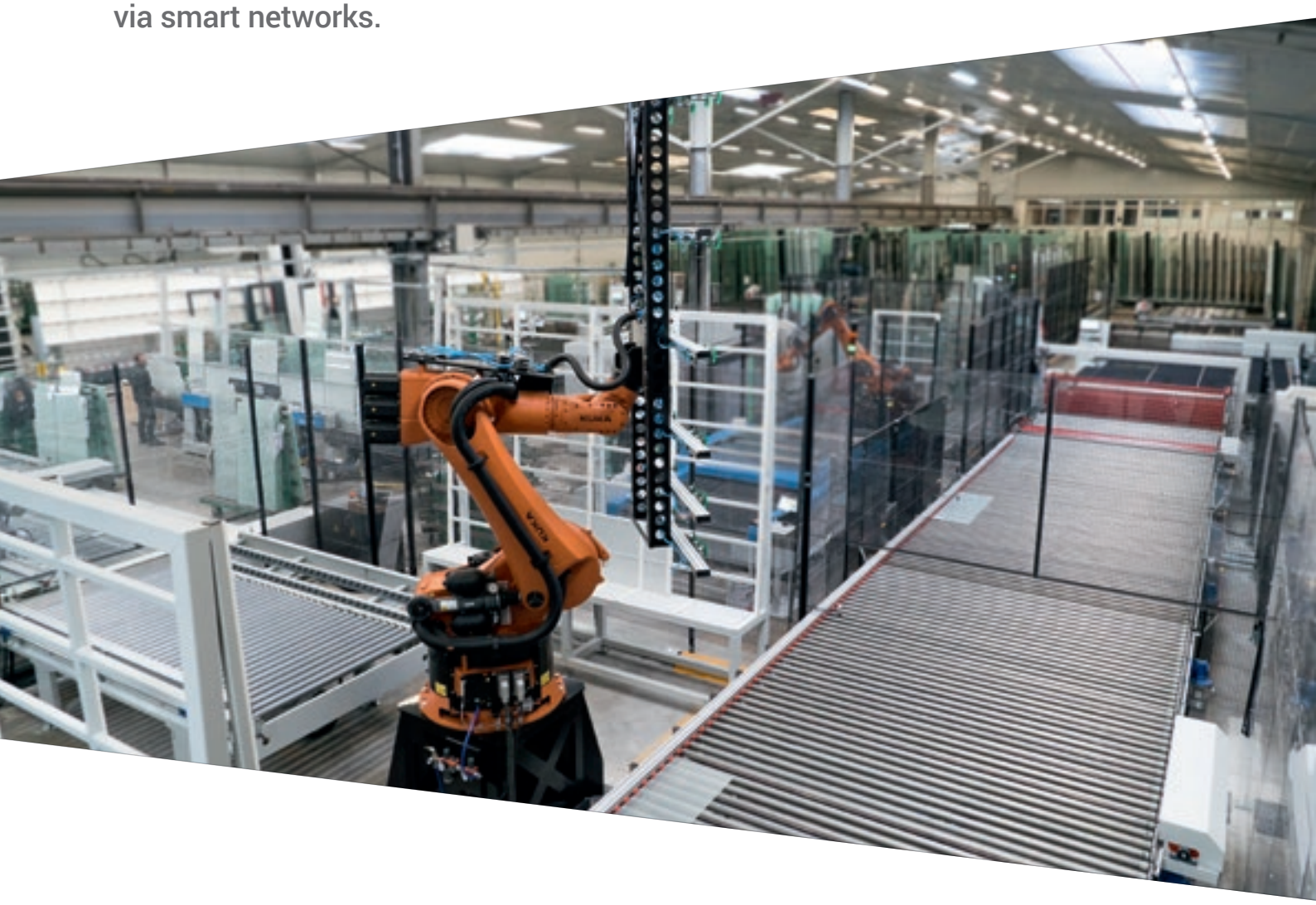
PARTS SOPHIA

PARTS SOPHIA is the easy new, user-friendly and personalised tool for ordering Biesse spare parts. The portal offers customers, dealers and branches the chance to navigate within a personalised account, consult the constantly updated documentation of the machines purchased, and create a spare parts purchase basket indicating the real time availability in the warehouse and the relative price list. In addition, the progress of the order can be monitored at all times.

Biesse

INDUSTRY 4.0 READY

Industry 4.0 is the latest industry frontier, based on digital technologies and machines that speak to the companies.
Products can be interconnected with the production processes via smart networks.



Biesse's commitment is to transform our customers' factories with real-time technology, ready to guarantee digital manufacturing opportunities, with smart machines and software packages becoming vital tools that facilitate the daily tasks of people all over the world processing glass, stone, metal and more. Our philosophy is a practical one: to supply entrepreneurs with solid data that can help them to lower their costs, optimise their processes and improve their results.

AND THAT MEANS BEING 4.0 READY.

MADE WITH BIESSE

EVERYTHING IN LINE WITHOUT TOUCHING THE GLASS

Right in front of the current TIV (Tout l'Intérêt du Vitrage Isolant) facility with offices in Treize-Septiers (in the small French city of Nantes) the ambitious project of Jean Yves Glumineau becomes a reality: an all new system for transforming flat glass "TAV" (Tout l'art du verre). An innovative project characterised by the maximum automation of processes, aimed at creating a true Smart Factory. The new facility is equipped with specialised technology for cutting, grinding/polishing, ceramic moulding, glazing, and tempering of glass: new machining operations that have increased the range of products already available from the parent company TIV.
An impeccable technological partner which the company could entrust with meeting this challenge was needed. "Our objective with this new facility was to have everything along the production line and to not have to manipulate the glass. We needed new, technologically advanced instruments in order to eliminate the dispersions caused by the transfer of glass sheets from one machine to another, minimising as much as possible the manual handling of the glass, and thus avoiding that operators spend most of their time pushing carriages rather than being efficient and productive on the machines."
Advanced machining operation technology, connectivity, tools for the simulation of products and processes, preventive traceability: these are the primary themes undertaken by Intermac and TAV in their ambitious pursuit of automation, integrating innovative resources and know-how.
The challenge of the TAV project was that of combining a wide range of skills and developing a high level of automation through the integration of robotics. The machines inserted in the automation process continuously and constantly optimise their performance. The solutions developed by Intermac give clients the certainty that they know precisely what is being produced and what level of efficiency is being achieved. Automation reduces the risk of error and the need for manual intervention to zero, so much so that productive output approaches perfection. But that's not all: now clients can know the processing time for an order and be able to maximise it in order to satisfy market demands as quickly as possible. In particular, to respond to the need for maximum flexibility, a Batch-One process was developed that optimises production and personalises large production batches as well. In this way TAV is able to rapidly adapt its production to trends in demand and to market needs. "We wanted all of our machines to be able to communicate with one another, working in a coordinated way without the need for operator intervention. We have succeeded brilliantly."

Founded in Italy,
international native.

We simplify yo
manufacturing
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of any materia

Biesse

We are an international company that manufactures integrated lines and machines to process wood, glass, stone, plastic and composite materials and what will come next.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution – empowering your imagination.

Master of materials, since 1969.

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