

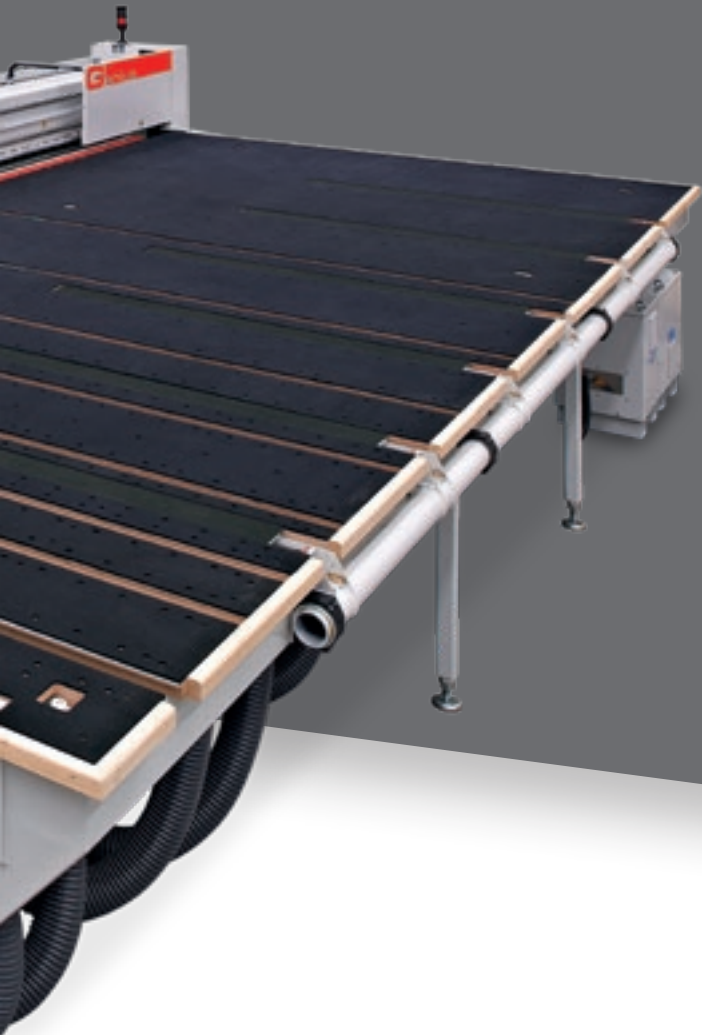
GENIUS LM-A SERIES

TABLES FOR LAMINATED GLASS
CUTTING

MAXIMUM PRODUCTIVITY IN SMALLER SPACES



Genius LM-A is the range of laminated glass cutting tables for companies that need high levels of productivity, with requirements of more than 400 square metres per shift and the option of automating the entire cycle, from loading to unloading of the finished volume. Patented by Biesse, these extremely innovative solutions enable the insertion of a line for laminated glass in drastically reduced spaces, with no compromises with regard to productivity.

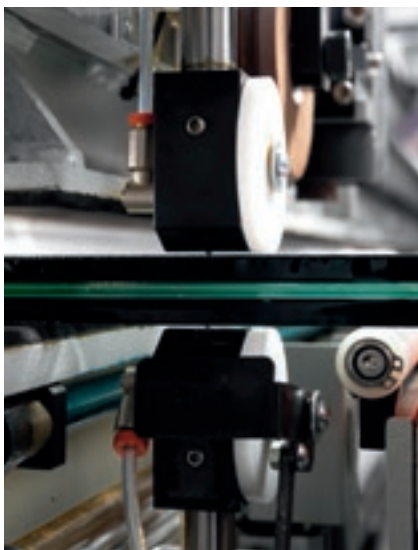


GENIUS LM-A SERIES

- ✓ MAXIMUM AUTOMATION OF PROCESSES FOR HIGH LEVELS OF PRODUCTIVITY IN LIMITED SPACE
- ✓ FULLY AUTOMATED GLASS HANDLING
- ✓ EASY TO LOAD AND UNLOAD FOR THE OPERATOR
- ✓ AUTOMATICALLY-CONTROLLED DIAGONAL CUTTING
- ✓ REDUCED CYCLE TIMES
- ✓ EXCELLENT CUTTING PRECISION

SIMPLE, INTUITIVE TECHNOLOGY

Genius LM-A guarantees the same technological solutions as the high-level systems used in the cutting lines of the largest industrial companies.



CUTTING

The Genius machines are equipped with a photocell to detect the beginning and end of the sheet, enabling free and inclined cuts to be completed.

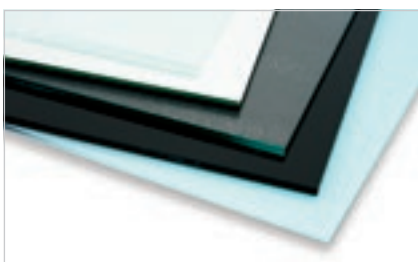
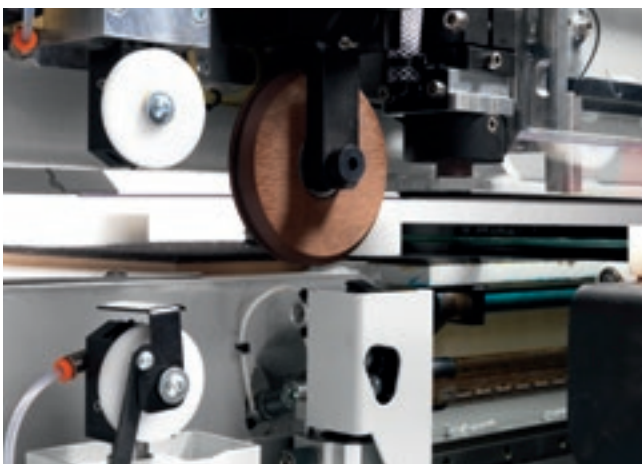
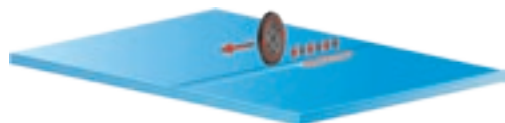
The cutting is carried out using very sensitive chucks mounted on carriages that are driven by brushless motors.

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

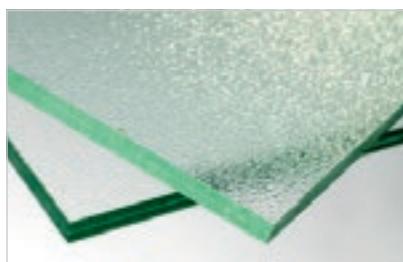


LOWER BREAKING OPERATIONS

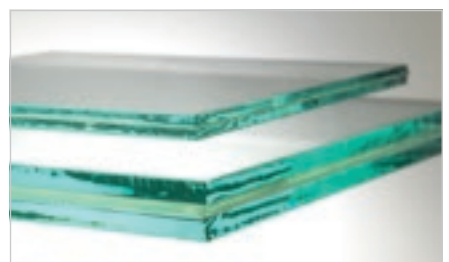
Lower breaking operations are carried out using a pneumatically-driven wheel, which is fitted directly onto the upper cutting carriage.



Machinable float glass.



Printed C glass.



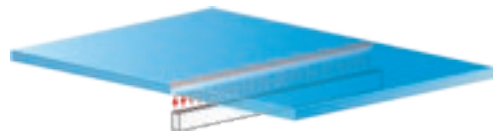
Laminated glass.

The rigid structure of the cutting bridge ensures superb results when machining glass of any thickness.



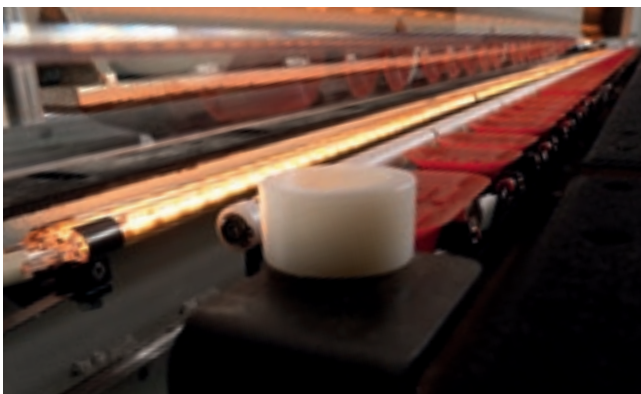
UPPER BREAKING GREATER THICKNESSES

The two-position breaking bar, which can be programmed in accordance with the thickness of the glass, automatically shears the upper plate. On the surface of the bar there is a coloured line, to be used as a reference for inclined cutting operations.



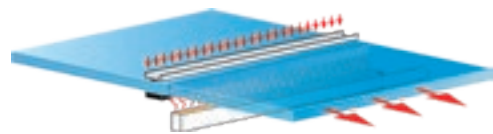
UPPER BREAKING

Reduction in cycle times courtesy of the innovative-patented system that enables operators to perform upper breaking operations during the heating phase of the PVB.



HEATING AND REMOVAL OF PLASTIC FILM

A short wave lamp warms the plastic film without overheating the glass. At the same time, the upper cutting bridge ensures that a portion of the sheet is held in place by pressing down on it, and a suction cup bar, which is pressed against the underside of the glass, enables the separation of the finished volume.

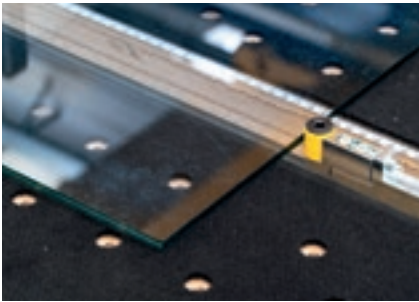


BLADE FOR CUTTING PVB

The blade mounted on the upper cutting carriage is particularly suitable for cutting PVB, ensuring a high-quality finish on the edge.



HIGH PERFORMANCE



AUTOMATIC REGISTRATION OF MEASUREMENTS

retractable mobile stop system for guidance - the operator pushes the plate against the stops to obtain the correct cutting dimensions. The stops are mounted on an adjustment bridge that slides under the table, leaving the work surface completely free from obstacles.



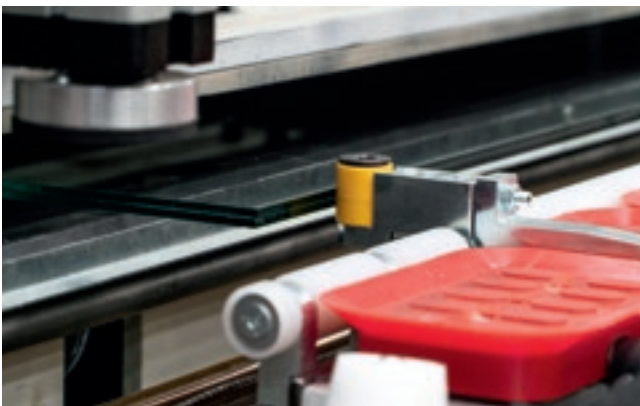
LASER FOR INCLINED CUTS

laser tracking system for automatically-controlled diagonal cutting of coloured glass and/or high opacity glass.



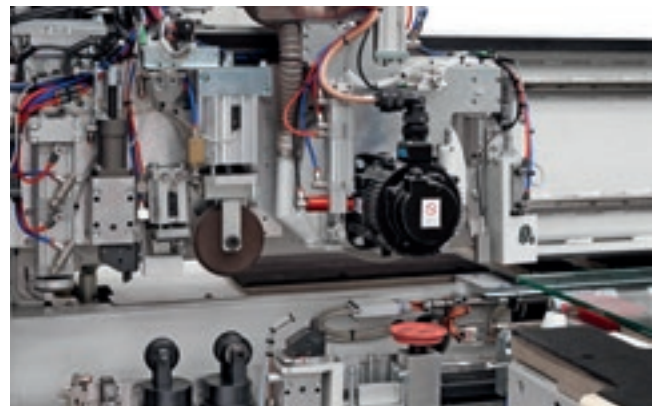
BCR DEVICE (BRUSH COATING REMOVAL)

for removal of the low-emissions film with a metallic brush (diameter 20mm). Constant removal quality, thanks to automatic brush wear compensation.



ZERO MM SQUARING

ability to carry out Low-E removal on the edge of the sheet or crosspiece. Increases the ability to generate different finished volumes.



TCR DEVICE (TANGENTIAL COATING REMOVER)

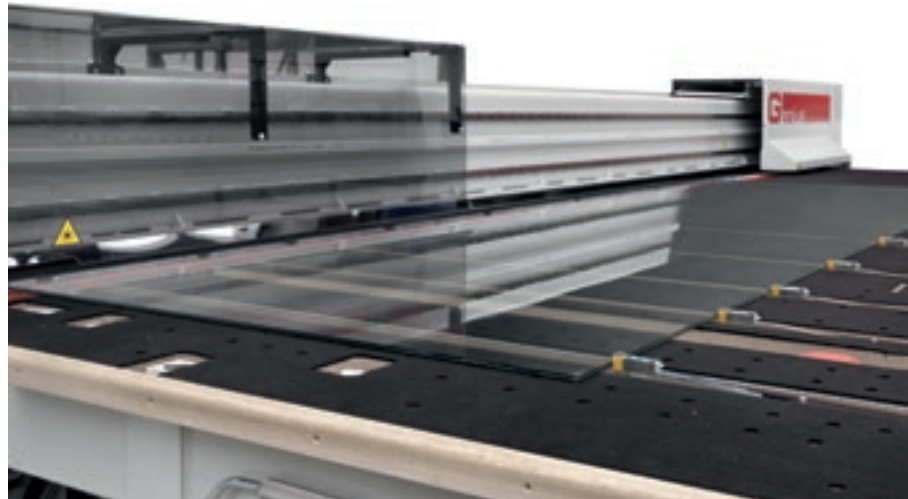
for removing the low emissivity film with a 200 mm-diameter abrasive grinding wheel. Ensures top productivity and a long lifespan.

ERGONOMICS AND FACILITATED HANDLING

The sliding adjustment bridge, positioned under the work table, renders the working area fully accessible, facilitating handling when switching machining operations.

ERGONOMICS

The machine is fully open at the front, enabling the operator to follow all phases of the cycle in real time. The cutting, breaking, removal and diagonal positioning operations are fully visible, enabling each stage to be checked. The unloading of the finished volumes and waste is free from obstructions, and takes place directly in the operating zone, with no need to move.



TILTING ARMS

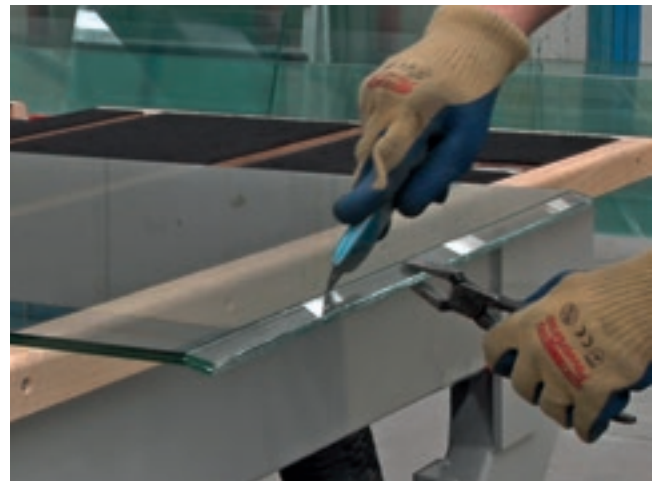
The machines are equipped with electro-pneumatic tilting arms for loading and unloading the sheets.

MAXIMUM FLEXIBILITY IN WASTE MANAGEMENT

Three levels of waste management automation are available.



Cutting + breaking + standard removal, 60 mm.



Cutting + automatic breaking + manual removal, 20 mm.



Cutting + breaking + automatic removal, 20 mm.

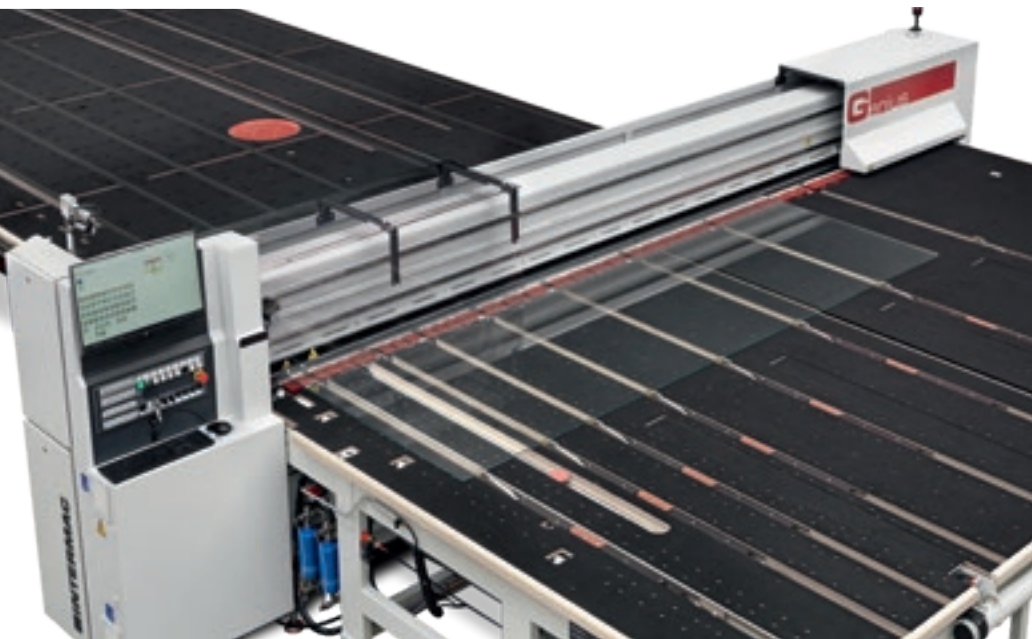


CUTTING, BREAKING OF SHAPED LAMINATED GLASS



SHAPED CUTS

A solution that allows for cutting, breaking and removal operations on shaped sheets to be carried out automatically on both sheets.

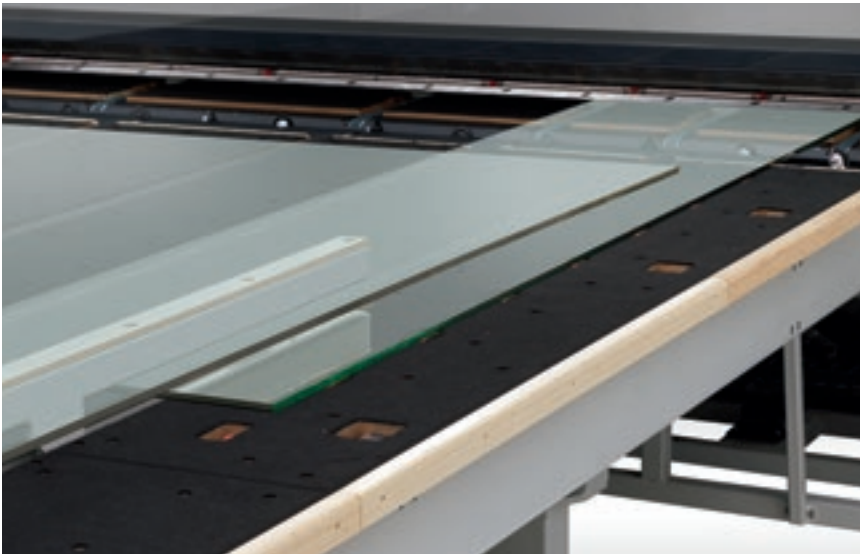


ASSISTED DIAGONAL CUT

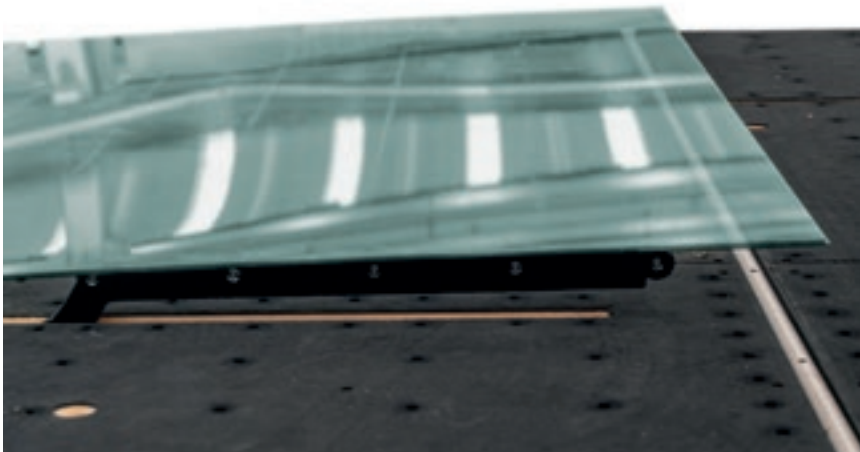
Function that allows to perform diagonals cuts with precision and flexibility with the elimination of the three manual operations of sheets measurement.



OPTIMISATION OF SPACE WITHOUT COMPROMISING ON PRODUCTIVITY

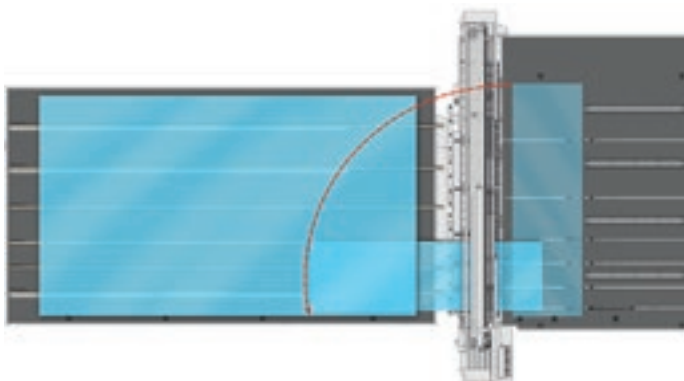


- Maximum process automation, enabling more than 400 square metres of laminated glass be produced during each shift, within a limited space.
- The movement of the glass is completely automated.
- Automatically-controlled diagonal cutting.
- Option of performing X static breaking of crosspieces on float glass for Comby lines. This function can be facilitated by the addition of the RB management table for managing the breaking process at the end of the line.



VERTICAL BUFFER

This patented solution serves to lift the sheet, enabling the crosspiece to be positioned underneath so that "Y" cuts can be performed. Significant reductions in overall dimensions when installed, without compromising productivity.

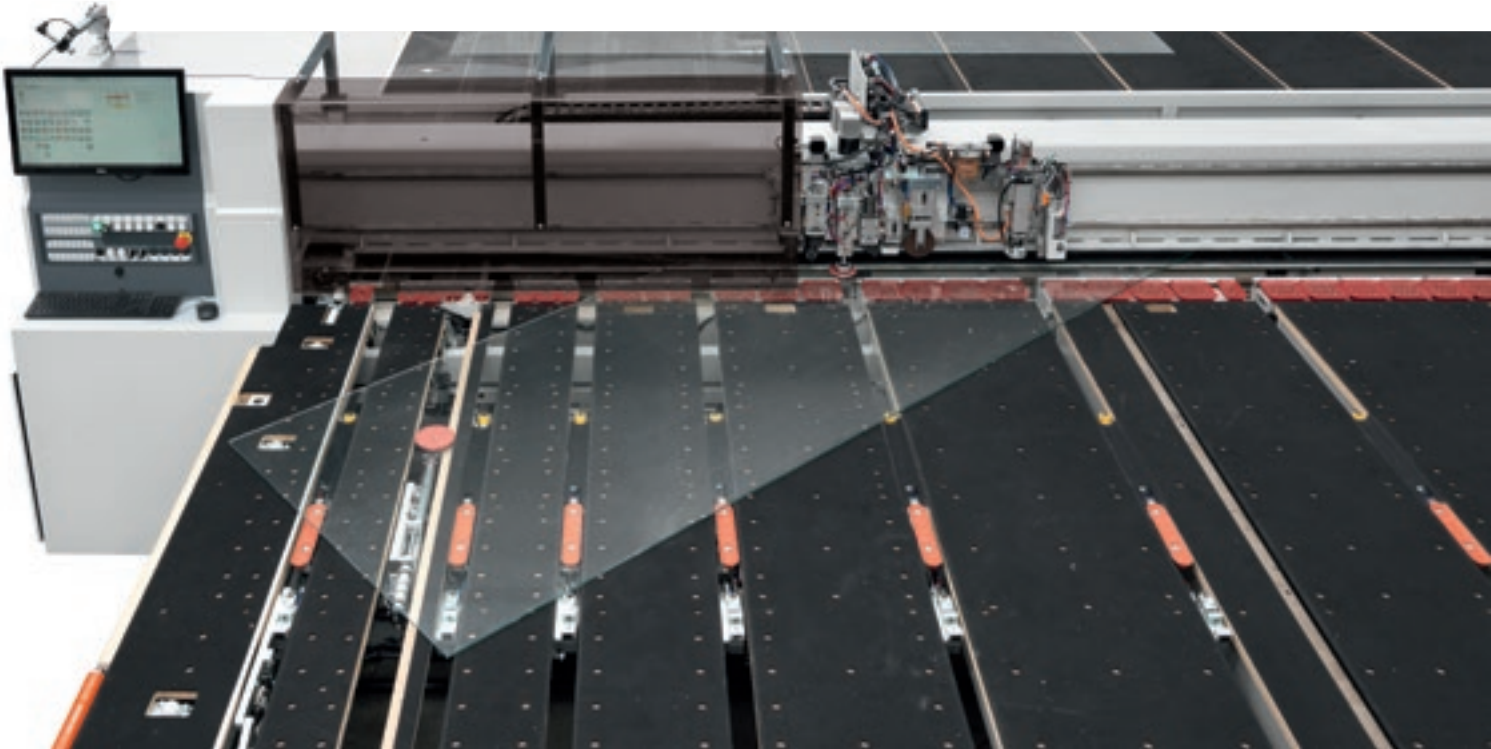


AUTOMATIC SOLUTIONS



CROSSPIECEROTATION

Automatic rotation of the crosspiece to carry out Y and Z cuts. After rotation, the crossbar is already in position for the squaring operation, in line with the first cut in Y.



BELT ASSEMBLY AT ENTRANCE

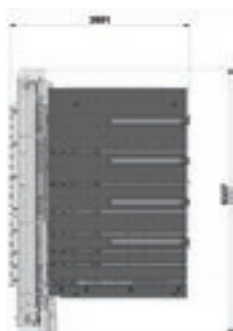
Thanks to the support of the belt assembly at the entrance of the cutting module, the operator remains in the zone for squaring/unloading the finished volumes at all times, enabling high levels of productivity. The crossbar moves automatically until the last volume is reached.



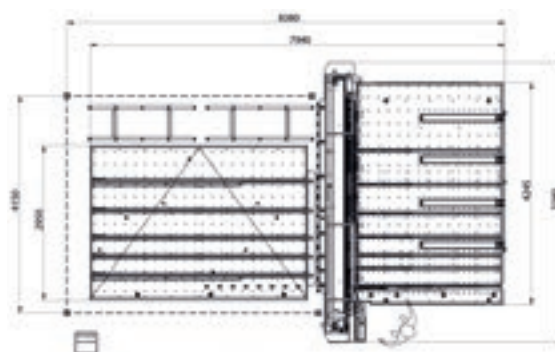
A SOLUTION FOR EVERY NEED

Biesse can offer solutions for the various different types of manufacturing operations and requirements of customers.

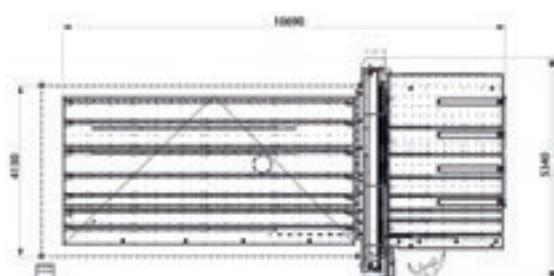
GENIUS 37 LM-A



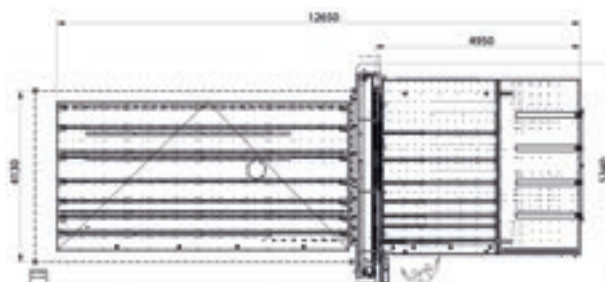
LINE R-A37 (37 LM-AC37)



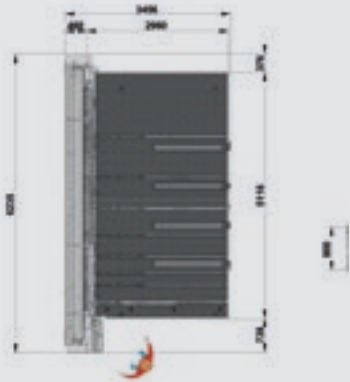
LINE J-A37



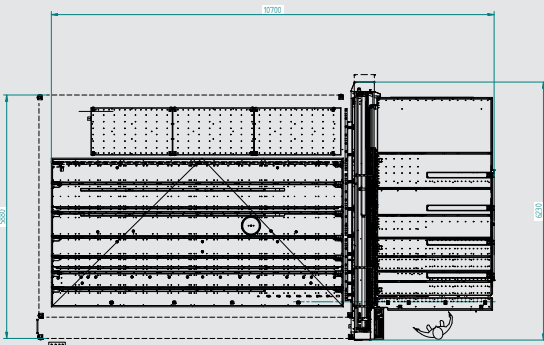
LINE J-A37+RC



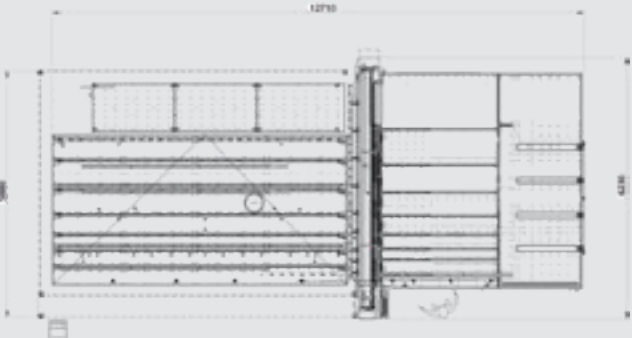
GENIUS 46 LM-A



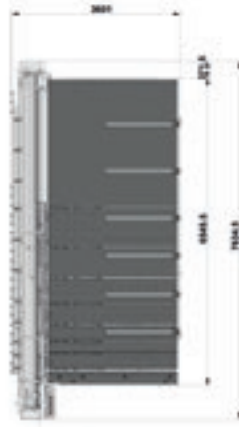
LINE J-A46



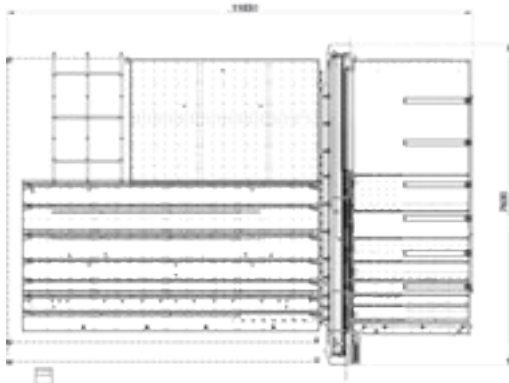
LINE J-A46+RC



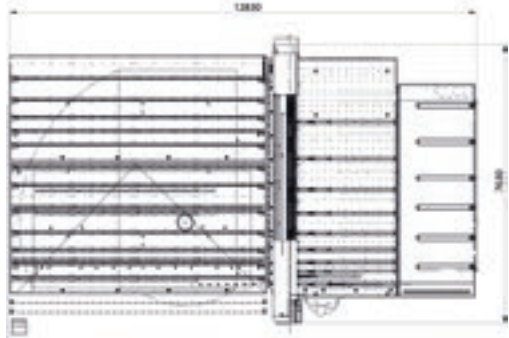
GENIUS 60 LM-A



LINE J-A60



LINE J-A60+RC



CO COMBY

BIESSE TECHNOLOGY

Comby lines are combined lines that were introduced onto the market by Biesse for high productivity cutting operations, and are the result of a clever combination between the Genius CT-Red and CT-Plus cutting tables (for float glass cutting) and the Genius LM-A tables (for laminated glass cutting): two automatic lines, one for float glass and one for laminate, for perfect integration even in smaller spaces.





INTELLIGENT COMBINATIONS

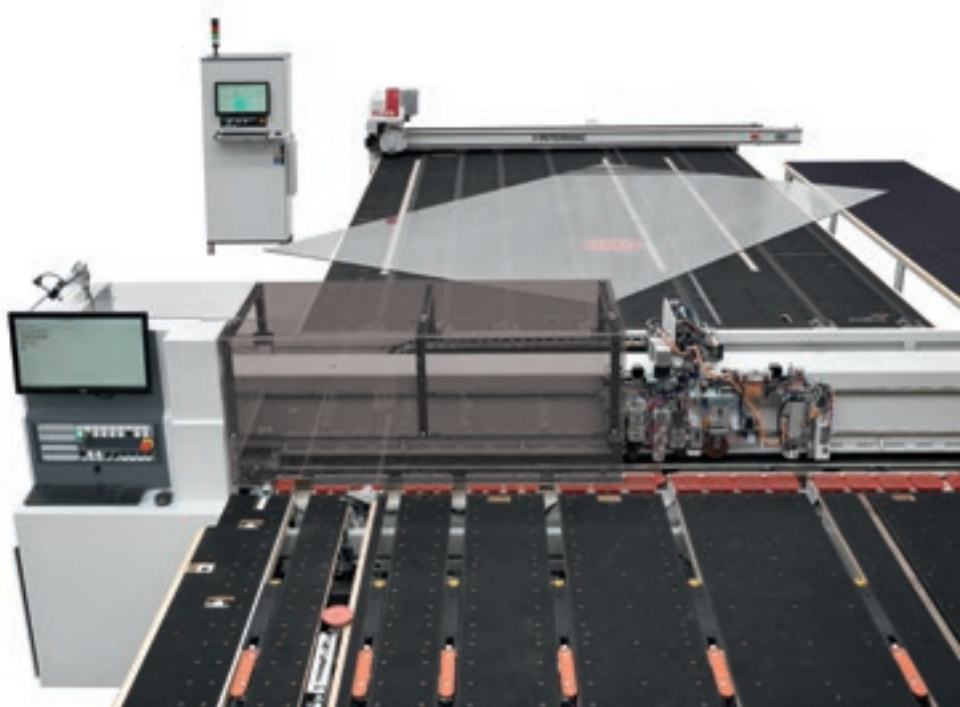
ROTATION UPSTREAM OF THE CUT

An optional feature that allows for the automatic rotation of residual portion of the original sheet that requires cuts greater than 3210 mm long

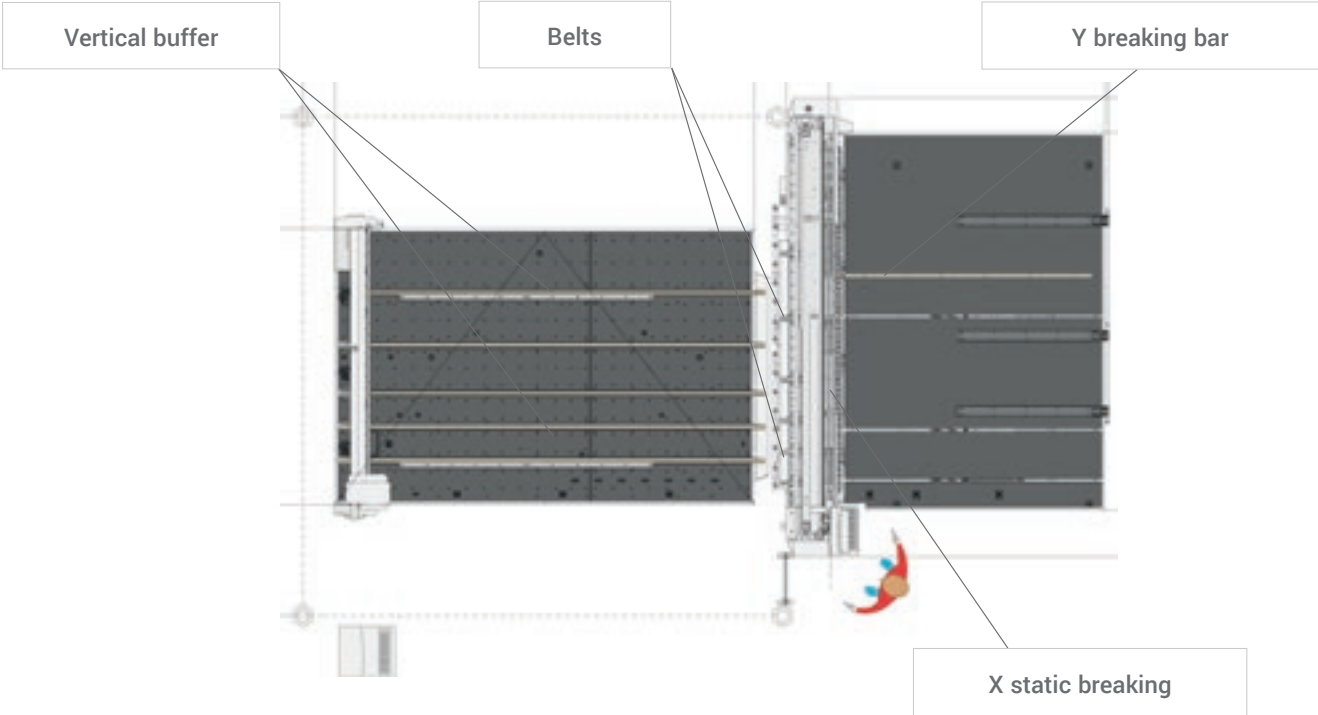
- ▾ Maximum size for automatic rotation
4600 x 3210 x 1010.4
- ▾ Maximum size for assisted rotation
4600 x 3210 x 1212.4.

ROTATION OF SUBPLATES AND PRIMITIVES

The functionality of the interpolated rotator allows for the automatic rotation of subplates and primitives.



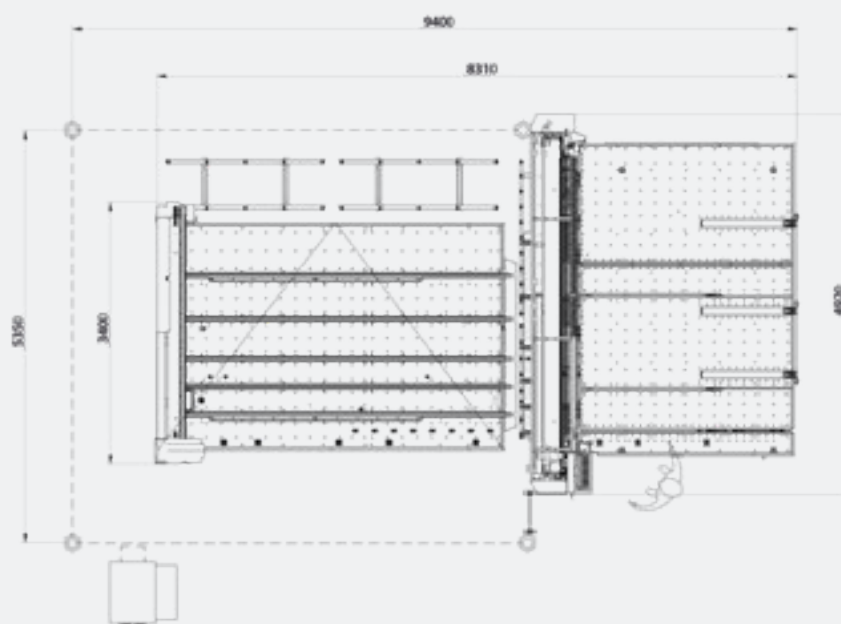
Comby guarantees top performance thanks to the series of functions on both the monolithic table and the laminated one.



A SOLUTION FOR EVERY NEED

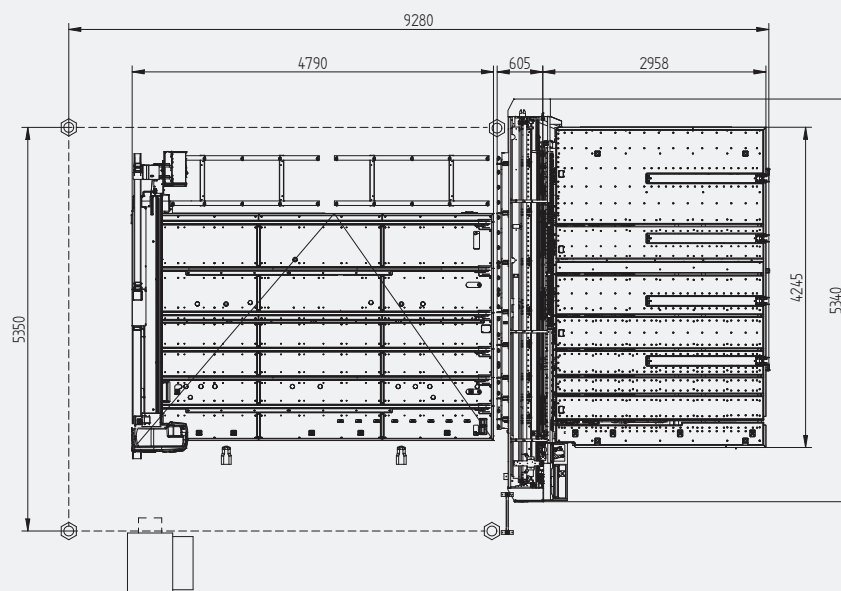
COMBY RED R-A37 BELT

Configuration with belts for automatic line



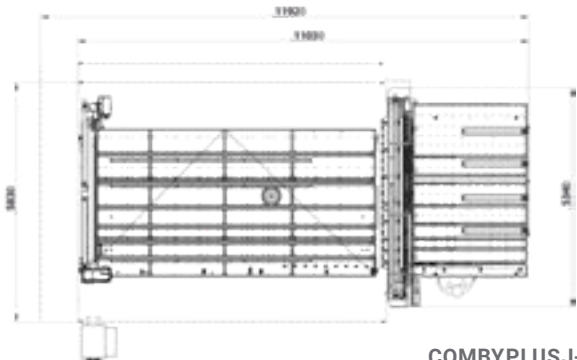
COMBY PLUS R-A37

Configuration with belts for automatic line



COMBY PLUS J-A37

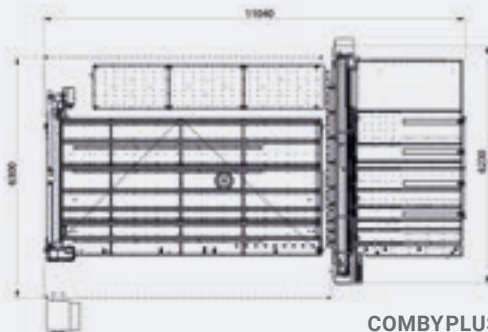
Configuration with belts for automatic line



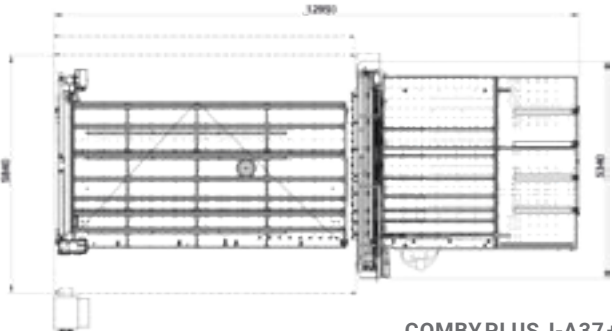
COMBYPLUSJ-A37

COMBY PLUS J-A46

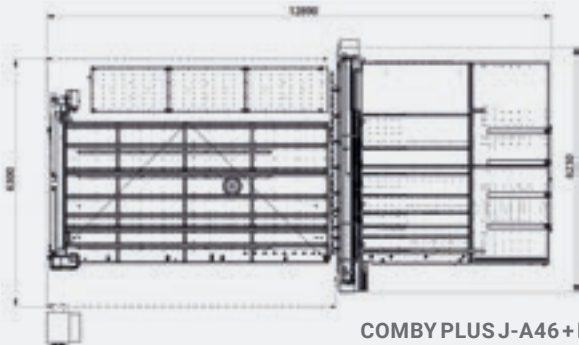
Configuration with belts for automatic line



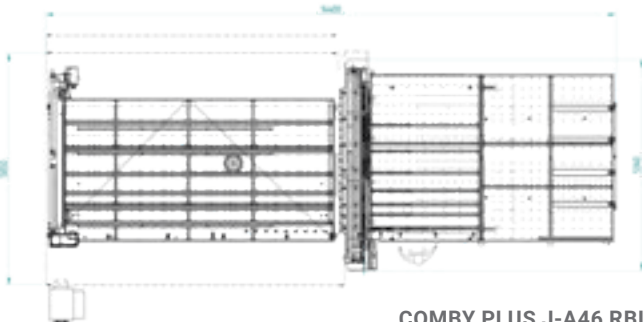
COMBYPLUSJ-A46



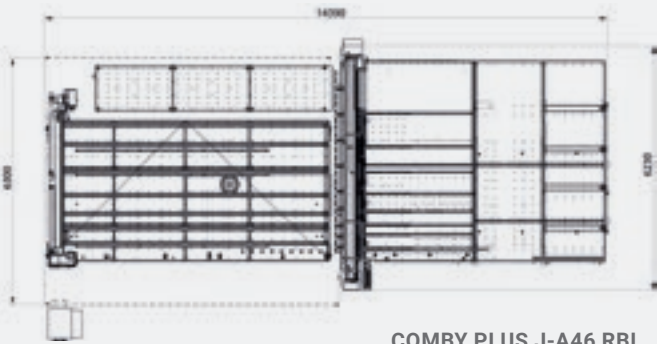
COMBY PLUS J-A37+RB



COMBY PLUS J-A46+RB



COMBY PLUS J-A46 RBL



COMBY PLUS J-A46 RBL

MAXIMUM EASE OF USE

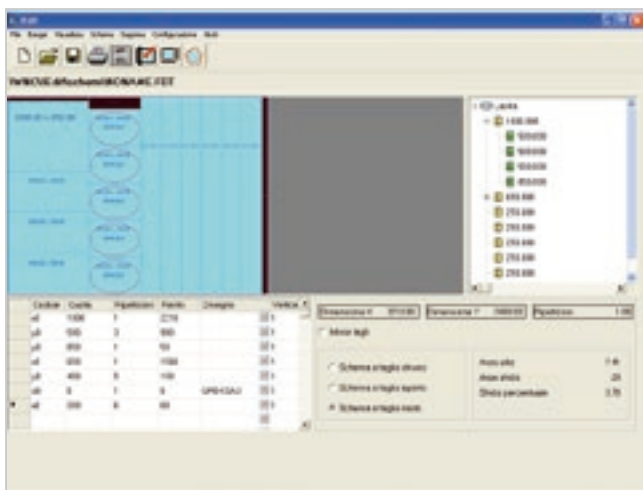


The operator interface is simple and intuitive, and enables cutting programmes generated by a range of the optimisers present on the market to be imported, courtesy of the integrated OTD (Optimiser Transferring Data) universal interface that automatically defines cutting parameters and generates the programme for the cutting table.

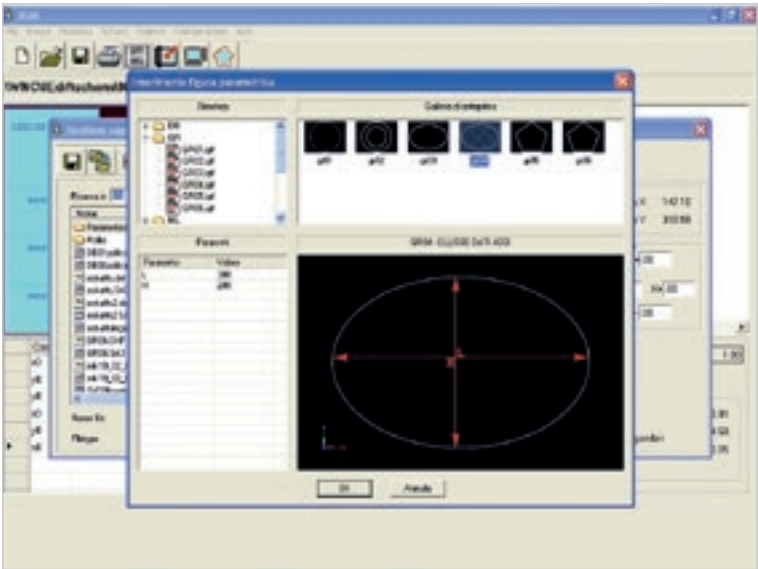


NUMERICAL CONTROL ON PC IWNC BASE (WNC - INTERMAC WINDOWS NUMERICAL CONTROL)

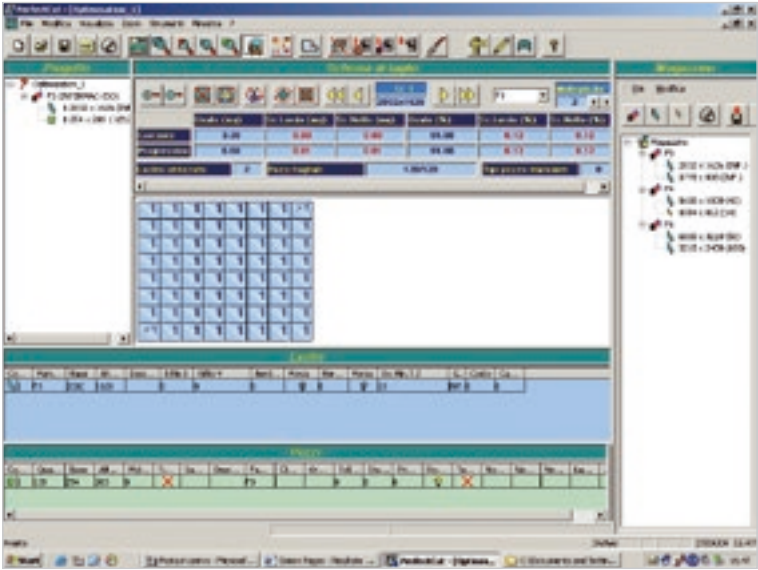
- Ideal both for those using CNC machines for the first time and those who already have programming experience.
- Management of the working parameters of the machine.
- Creation and modification of the cutting patterns and/or of geometric or non-geometric shapes.
- Modules for performing quick estimates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



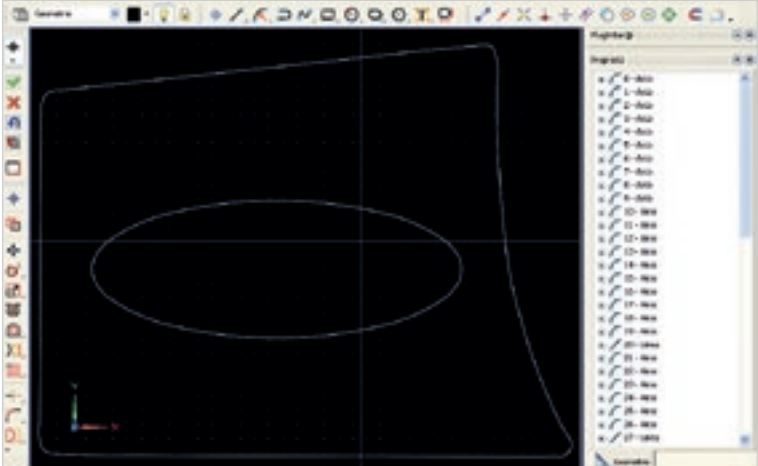
Cutting editor in the Windows environment, with a user-friendly graphic interface, for making straight cuts on sheets without employing the optimisation program. Particularly recommended for quick, immediate cuts, it can manage an endless number of nesting levels and also offers a function for inserting shapes in the glass sheets before cutting.



Parametric library on the machine, containing parametric shapes ready for the optimised cut and working directly on the machine.



Optimiser for straight and shaped cuts. Ideal for shaped cuts and open cuts, this software allows even the most complex production to be optimised to ensure minimum wastage.



Multi-tasking programming software in the Windows environment, for designing shapes complete with parametric programming, automatic geometric profile regeneration functions using a FreeForm function and an automatic function for optimising and regenerating the geometries of artistic shapes in .dxf format (for cuts on vinyl).

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.



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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

90%

OF MACHINE DOWN CASES
WITH RESPONSE TIME
UNDER 1 HOUR

+100

EXPERTS IN DIRECT
CONTACT THROUGH
REMOTE CONNECTIONS
AND TELESERVICE

92%

OF SPARE PARTS ORDERS
FOR MACHINE DOWNTIME
PROCESSED WITHIN 24
HOURS

+50.000

ITEMS IN STOCK IN THE
SPARE PARTS WAREHOUSES

+5.000

PREVENTIVE MAINTENANCE
VISITS

80%

OF SUPPORT REQUESTS
SOLVED ONLINE

96%

OF SPARE PARTS ORDERS
DELIVERED IN FULL ON TIME

88%

OF CASES SOLVED WITH
THE FIRST ON-SITE VISIT

TECHNICAL SPECIFICATIONS

		GENIUS 37 LM-A	LINE J-A37 LINE R-A37	COMBY PLUS J-A37
Maximum effective cut length	mm		3710	
Minimum squaring	mm		0	
Maximum squaring	mm		3210	
Laminate sheet thicknesses	mm	88.12	1010.4	1010.4
Float glass sheet thicknesses	mm		3 - 10	
Minimum breaking (opt. 20 mm for 22.1 :-66.4)	mm		60	
Minimum separation (opt. 20 mm for 22.1 :- 66.4)	mm		60	
Maximum operating head speed	m/min		150	
Cutting accuracy	mm		+/- 0,5	
Work table height	mm		900 (-15 :- 45)	
Single/dual lamp power requirements	kW	23.6	31.9 (R) - 35.2 (J)	43

		GENIUS 46 LM-A	LINE J-A46	COMBY PLUS J-A46
Maximum effective cut length	mm		4600	
Minimum squaring	mm		0	
Maximum squaring	mm		3210	
Laminate sheet thicknesses	mm	88.12	1010.4	1010.4
Float glass sheet thicknesses (opz 1212.4)	mm		3 - 10	
Minimum breaking (opt. 20 mm for 22.1 :-66.4)	mm		60	
Minimum separation (opt. 20 mm for 22.1 :-66.4)	mm		60	
Maximum operating head speed	m/min		150	
Cutting accuracy	mm		+/- 0,5	
Work table height	mm		900	
Single/dual lamp power requirements	kW	27.5	41.3	48

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) 79 dB. Uncertainty of measurement K = 4dB (A).

The measurement was carried out in compliance with UNI EN ISO 3746, 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.

MADE WITH BIESSÉ

GLASS ART AND CUTTING-EDGE TECHNOLOGY

"In Fiam's workshops, we have always tried to respond to designer ideas, even when they were apparently impossible to implement. Designers, like artists, have a creativity that stimulates cutting-edge innovation. So, over time, we have been able to develop new technologies that have allowed us to create unique objects on an industrial scale".
"Everything started with a stool. A glass stool, of course. A photographer friend came to see me in my glass workshop, saw me standing on the stool and took a picture that was published in some

newspapers. That's when I thought: why not try to make furniture with this material?

From the first, self-built oven to bend glass sheets through to the first collaborations with artists and designers, it's been an ongoing learning curve.

Along with design innovation, Fiam has always invested in technological innovation too. In this respect, the partnership with Intermac for the development of solutions such as double-edging grinding machines and the Master processing centres range is a strategic one.

Our company has always worked in partnership with internationally-renowned Italian and foreign designers.

People like Massimo Morozzi, Rodolfo Dordoni, Giorgetto Giugiaro, Enzo Mari, Cini Boeri through to Vico Magistretti, Ron Arad, Makio Hasuike. Not forgetting Philippe Starck, Daniel Libeskind and Massimiliano Fuksas".

*Vittorio Livi,
founder and sole director of Fiam Italia,
Italy*

Founded in Italy,
international native.

We simplify your
manufacturing
to make the process
of any material



ur
g process
potential
I shine.

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.

Join the
Biesse world.

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