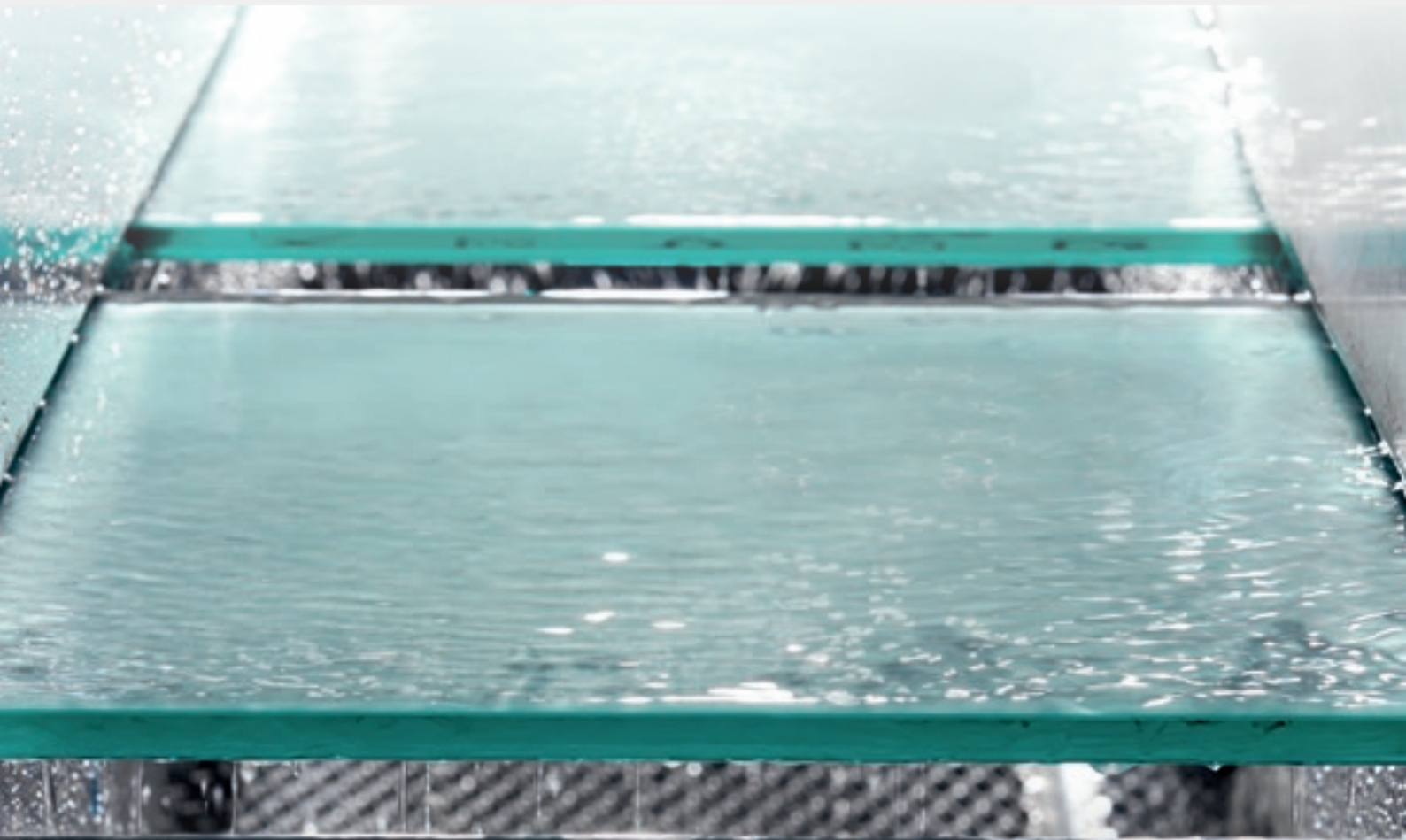
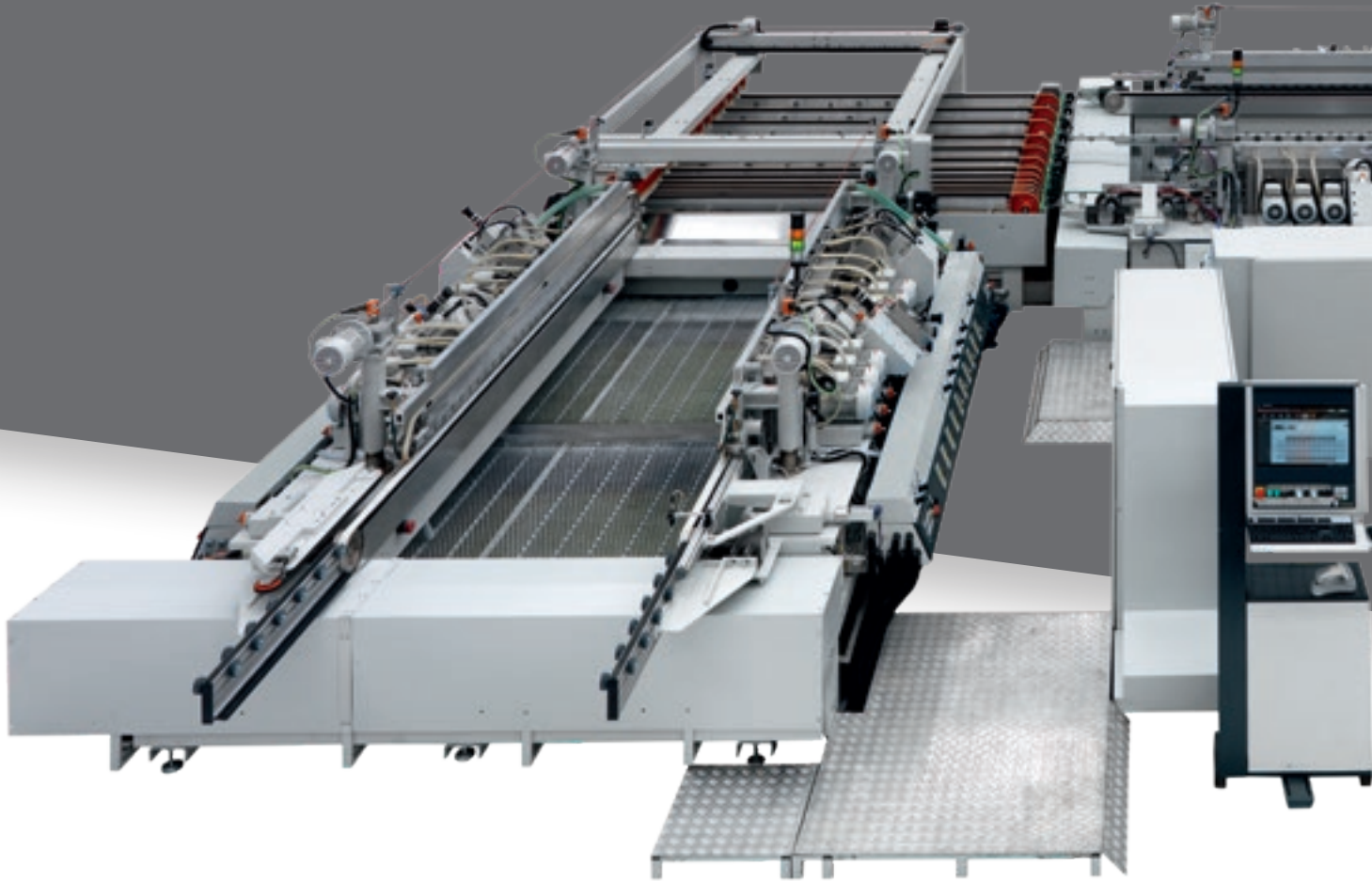


BUSE TTI F-P SERIES

CNC DOUBLE-EDGING
MACHINES AND SYSTEMS



LEADING TECHNOLOGY



The Busetto F and P series are two ranges of double-edging machines and systems that are ideal for applications such as structural façades, interior structural elements, glass for furnishings, household appliances and solar panels, which call for reliable and customisable solutions that provide for the highest quality and precision along with total flexibility, with minimum operator intervention.

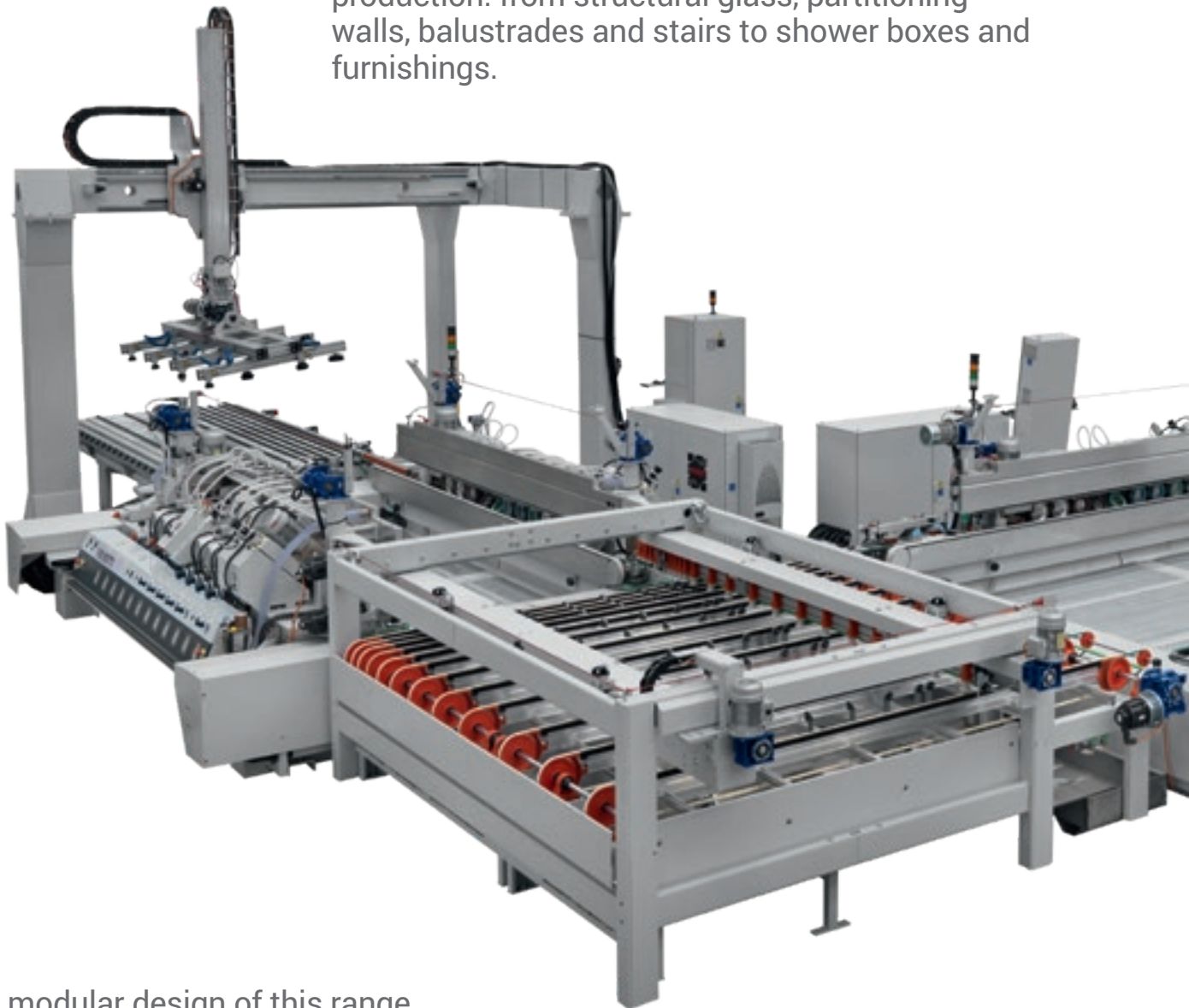


BUSETTI F-P SERIES

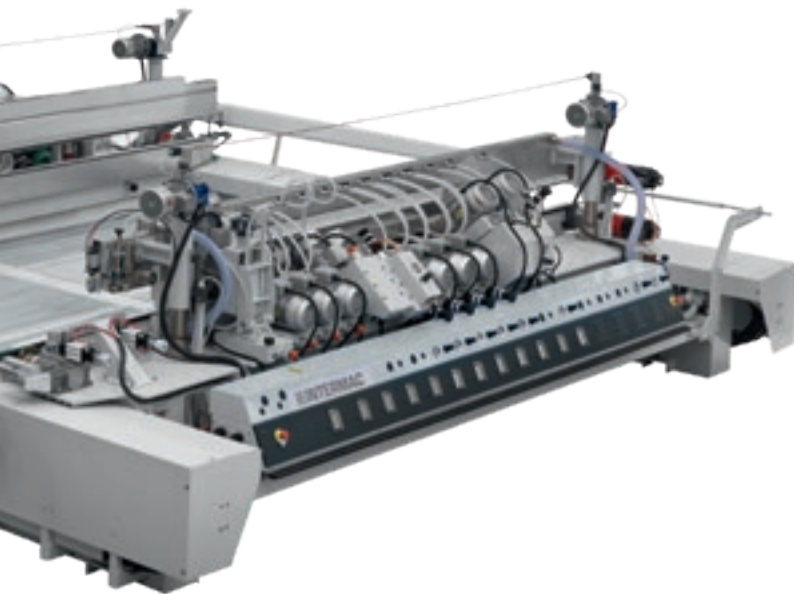
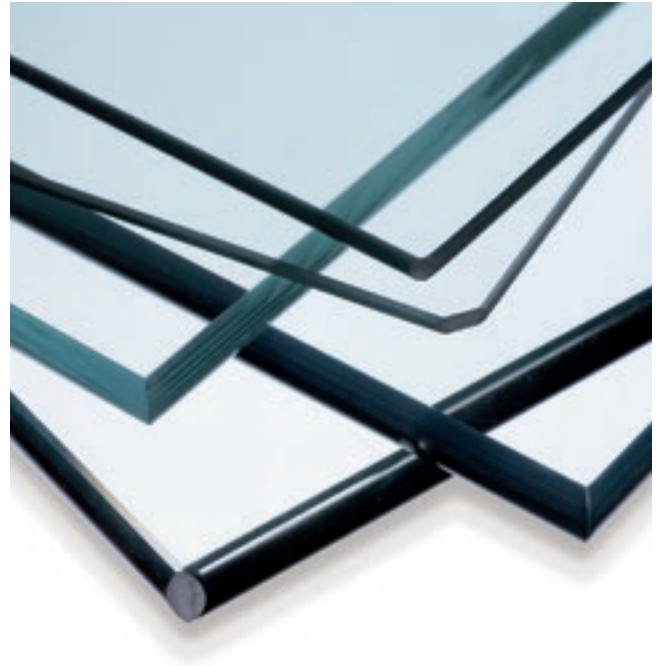
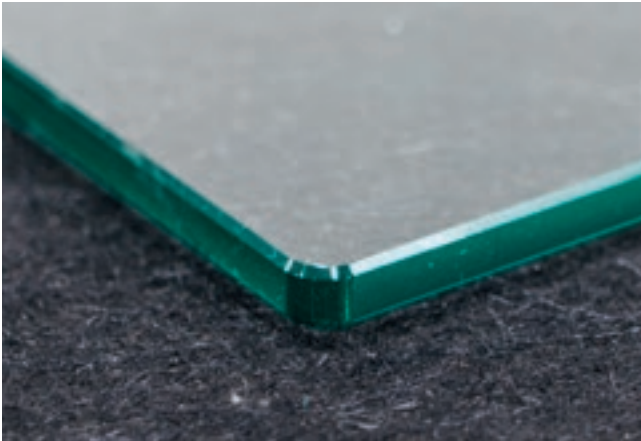
- ✓ **MAXIMUM QUALITY AND PRECISION OF RESULTS.**
- ✓ **HIGH LEVELS OF FLEXIBILITY FOR “JUST IN TIME” PRODUCTION AND MAXIMUM PRODUCTIVITY IN PLANTS.**
- ✓ **LONG-TERM RELIABILITY.**
- ✓ **MECHANICAL AND ELECTRONIC TECHNOLOGIES THAT ARE UNIQUE IN THEIR FIELD.**
- ✓ **WIDE RANGE OF BUILD CONFIGURATIONS AND CUSTOMISATION OPTIONS.**

BUSETTI F SERIES: MAXIMUM FLEXIBILITY AND PRODUCTIVITY

The Busetti F series is the ideal solution for flat edge grinding operations with standard 2 mm or 15 mm arris with 45° profile, ideal for small, medium and large glassworks companies with flexible production: from structural glass, partitioning walls, balustrades and stairs to shower boxes and furnishings.



The modular design of this range of double-edging machines provides customers with a bespoke solution which boasts all the advantages of a highly-industrialised product.



Flat edge with arris.



Flat edge with increased 45° chamfer.



Flat edge with step.



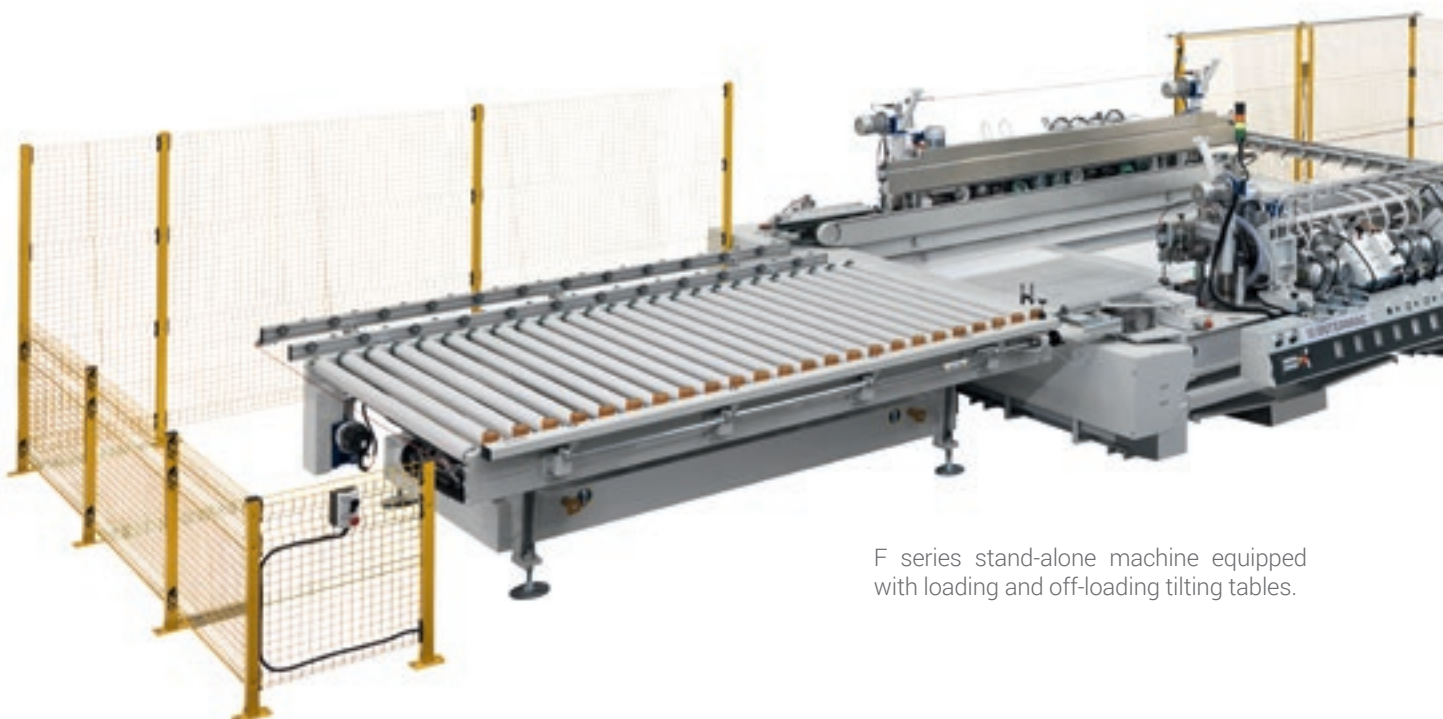
Flat edge with edge grooving.

MAXIMUM PERFORMANCE FOR CUSTOMISED SOLUTIONS

Innovative solutions, even in terms of automation, make the production line flexible and highly productive, for small batches (batch-one production) and different thicknesses.



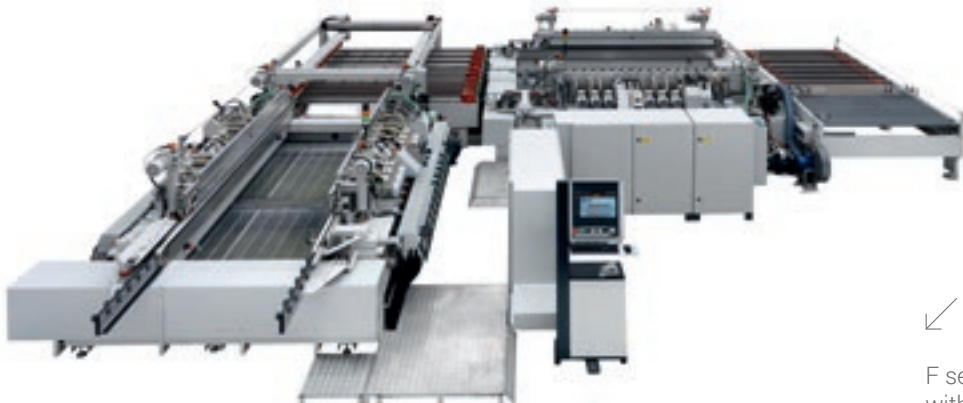
The F series of double-edging machines can also be used in stand-alone configuration.



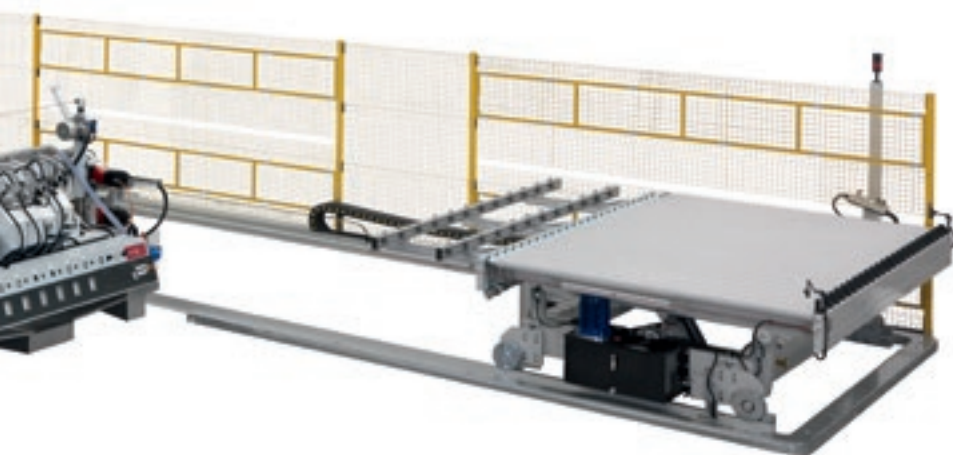
F series stand-alone machine equipped with loading and off-loading tilting tables.



U line which can be equipped with both manual and automatic loading and off-loading systems.

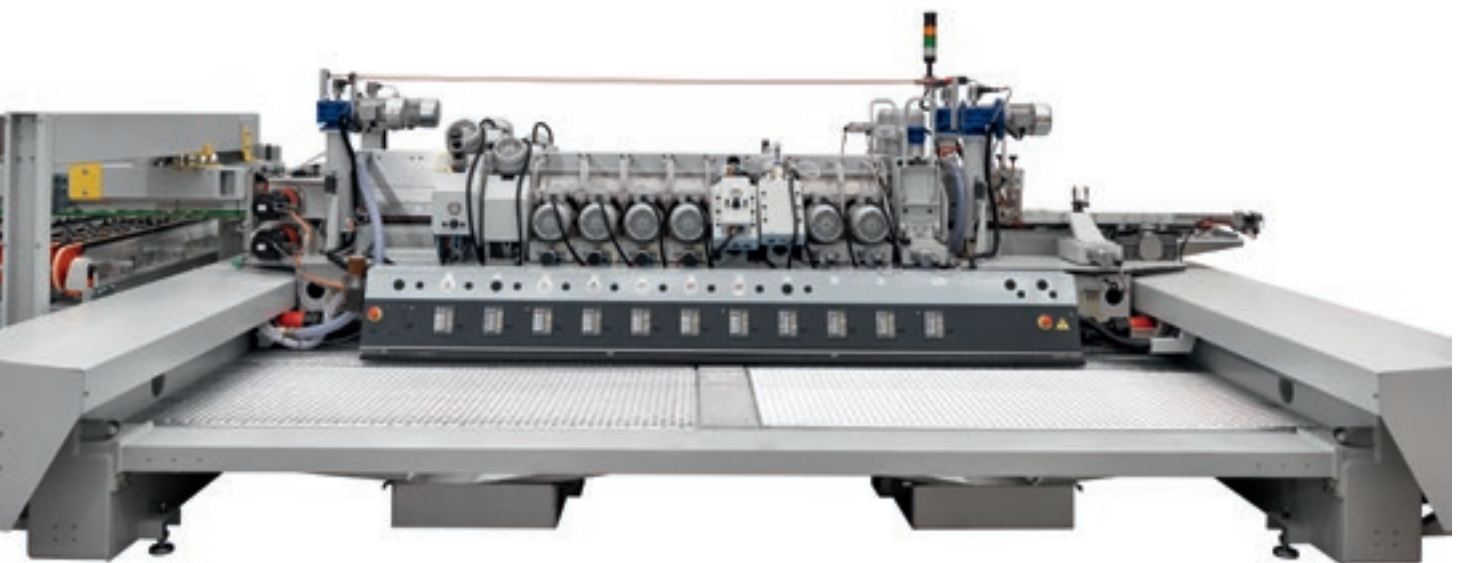


F series reverse line, ideal for companies with limited space.



MAXIMUM QUALITY AND PRECISION OF RESULTS

The highest precision of machining is guaranteed through the use of highly technological materials and technical solutions that ensure maximum reliability and sturdiness over time



Basement with external guides to keep the guides away from the water, and to improve stability when moving the movable crosspiece, an essential element for ensuring maximum squaring precision on both small and large sheets.



The inlet glass aligning units help the operator to position the glass correctly in the machine, thanks to a proper length of the glass inlet area



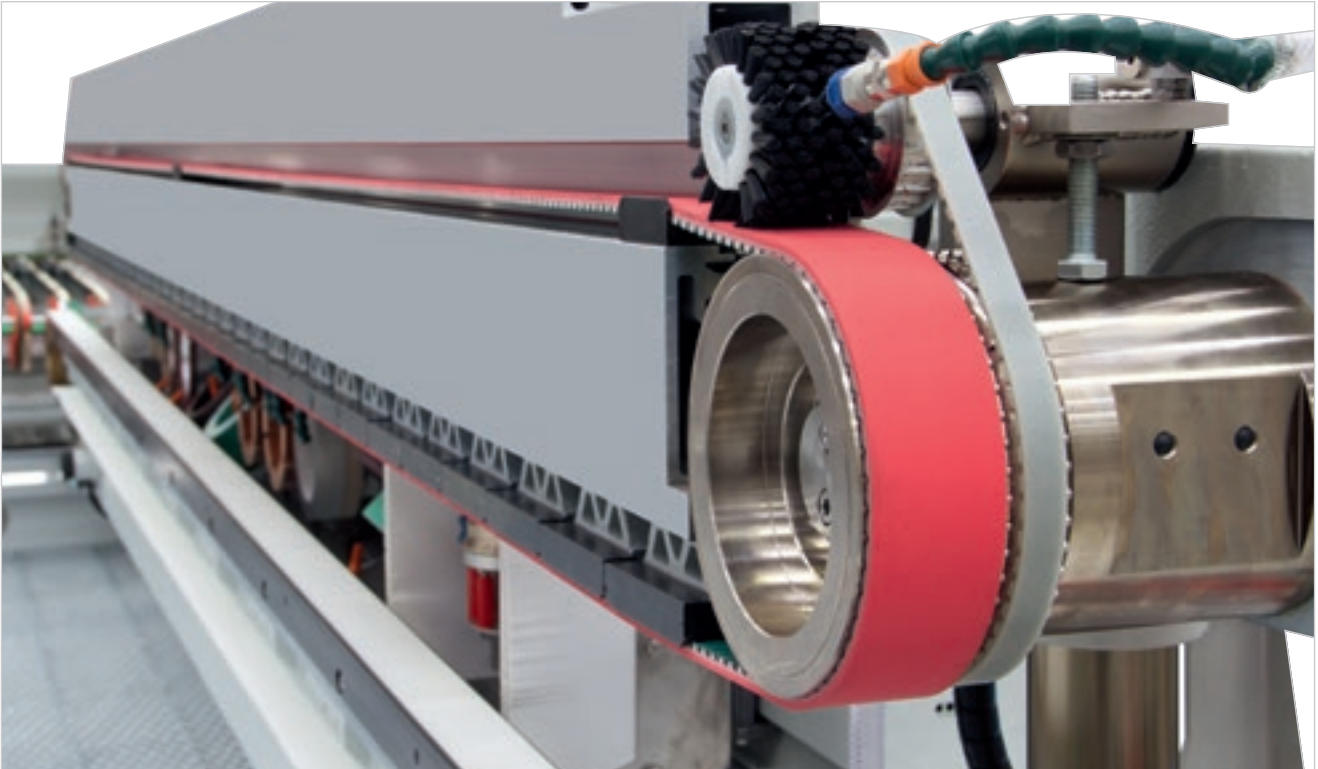
The crossbridges are designed to keep the water away from the spindle slides and their robustness guarantees maximum reliability and no vibration during grinding.

Fluidity and high speed in the cross-bridge movements ensure minimal set-up times. Absolute absence of vibration even in the most demanding workings thanks to the solidity of the basement structure



The glass clamping system consisting of a transport belt running on plastic pads and rubber pressers assures high-stability and low-maintenance.

This system provides an excellent clamping of the glass thanks to its large contact surface and it allows the replacement of worn parts only.



MINIMAL SET-UP TIMES



The simplicity and accessibility when changing the grinding wheels has been optimised, thanks to the possibility to raise the upper presser.

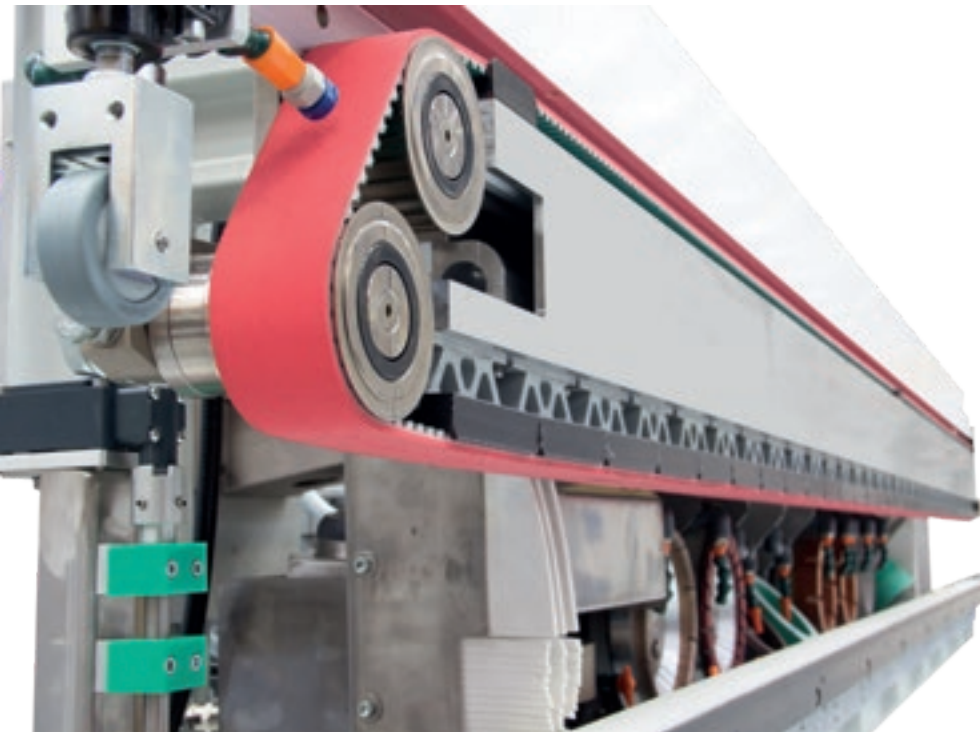


LONG-TERM RELIABILITY

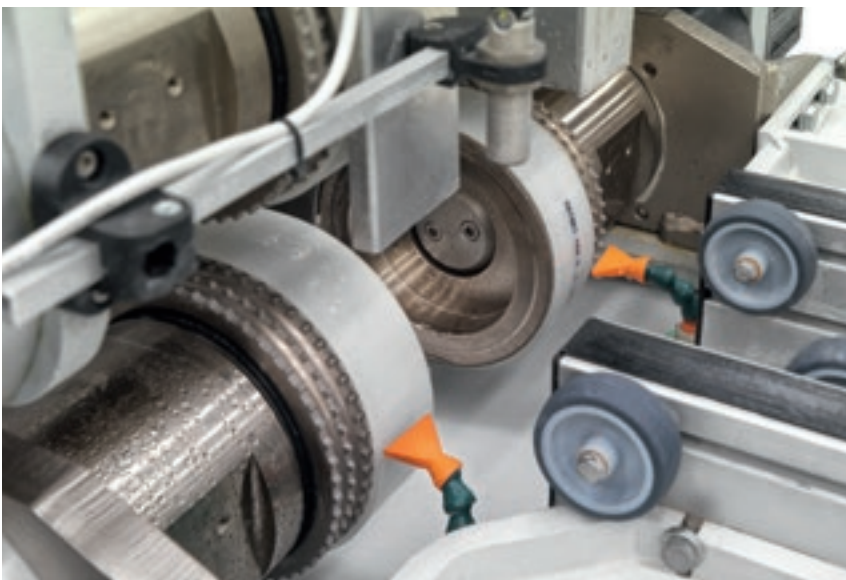
Busetti machines are guaranteed to last over time, enabling operators to work up to 3 shifts a day, with minimal machine maintenance required from the operator.



Maximum reliability is guaranteed, thanks to the quality of the materials and components selected.

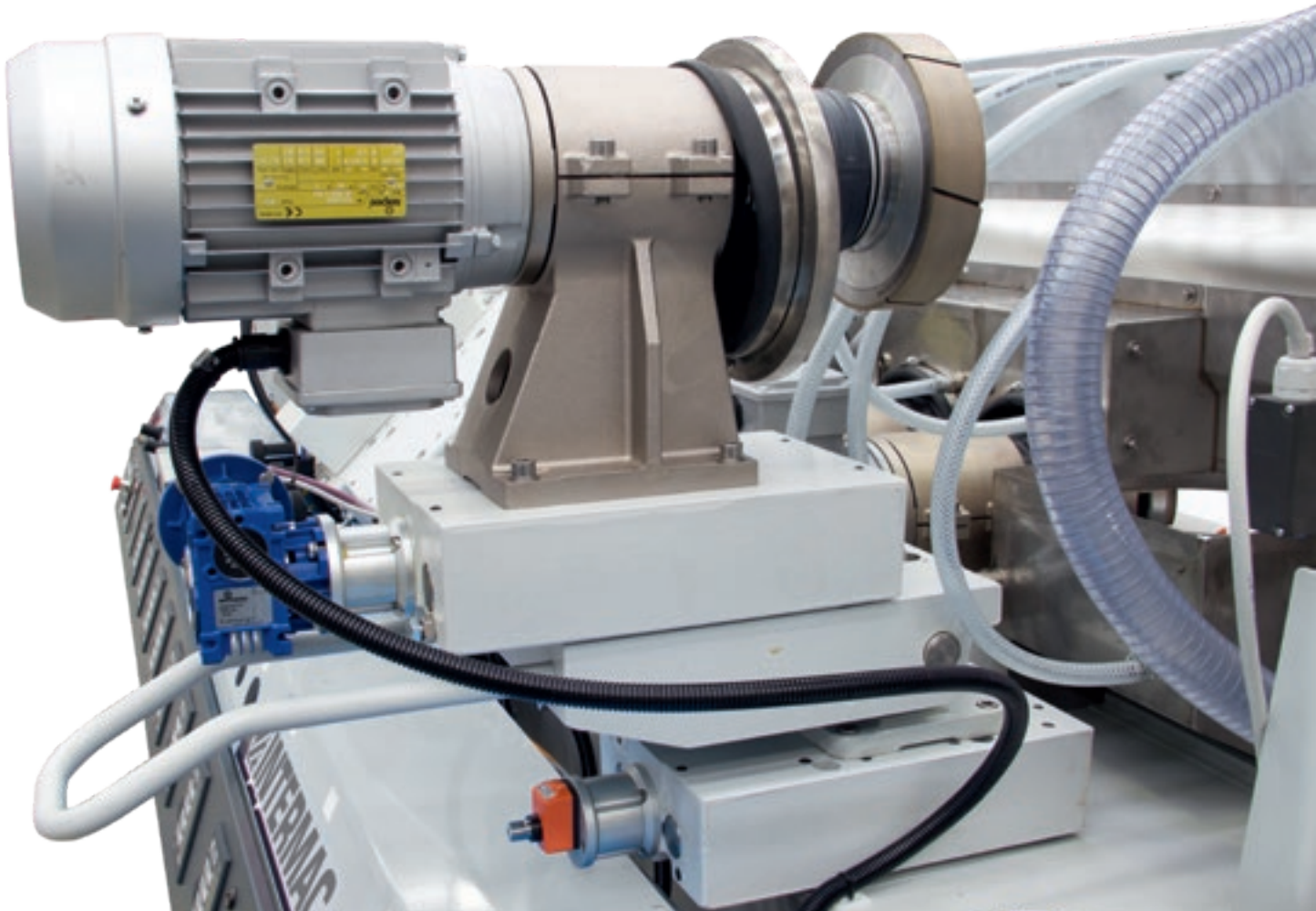


The transport belts washing system prevents scratches on the glass surface.





Slides and spindles with high quality bearings and bigger diameters guarantee long life and excellent stability during the glass processing



Possibility to pre-set the tools by making the setting operations simple and fast.

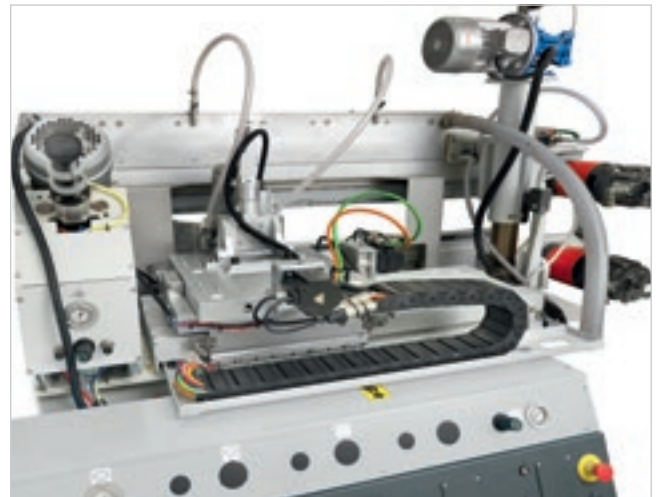
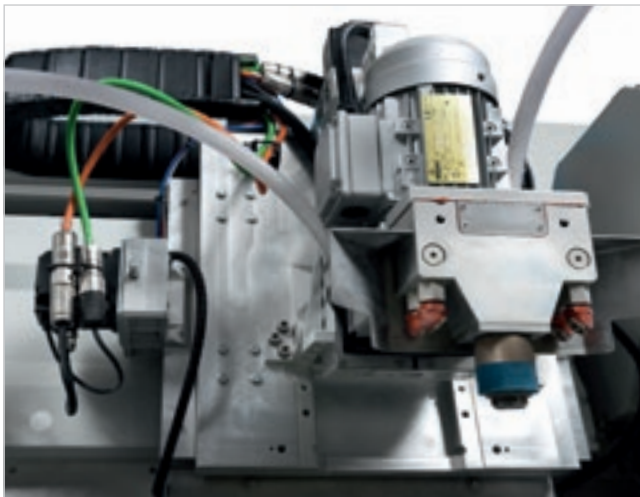
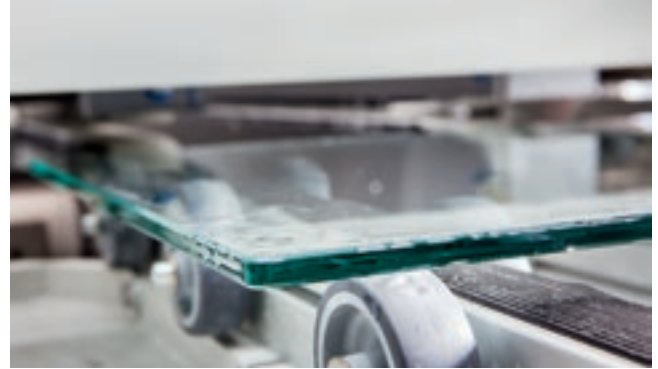
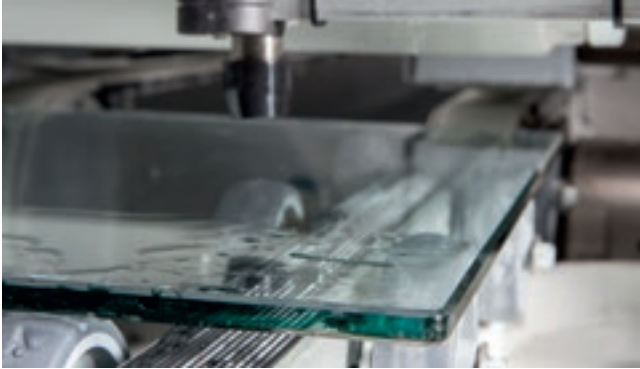
OPTIMISED RADIUS EXECUTION AND CHAMFERING

The corner-rounding units are patented Biesse devices which can execute either rounded or chamfered corners, both on diamond edge and on polished edge, from 1 to 5 mm on rounded corners and from 1 to 7 mm on chamfered corners. With this innovative system, it is not necessary to stop the glass in the machine; the rounding or chamfering operation can be performed while the glass is being machined, with no need for additional equipment.



Thanks to this revolutionary solution, the Busetti range offers the opportunity to redesign the production process by opening new application horizons to the traditional double-edging lines.





Easy access for the replacement of the grinding wheels, simply by tilting up the spindle.

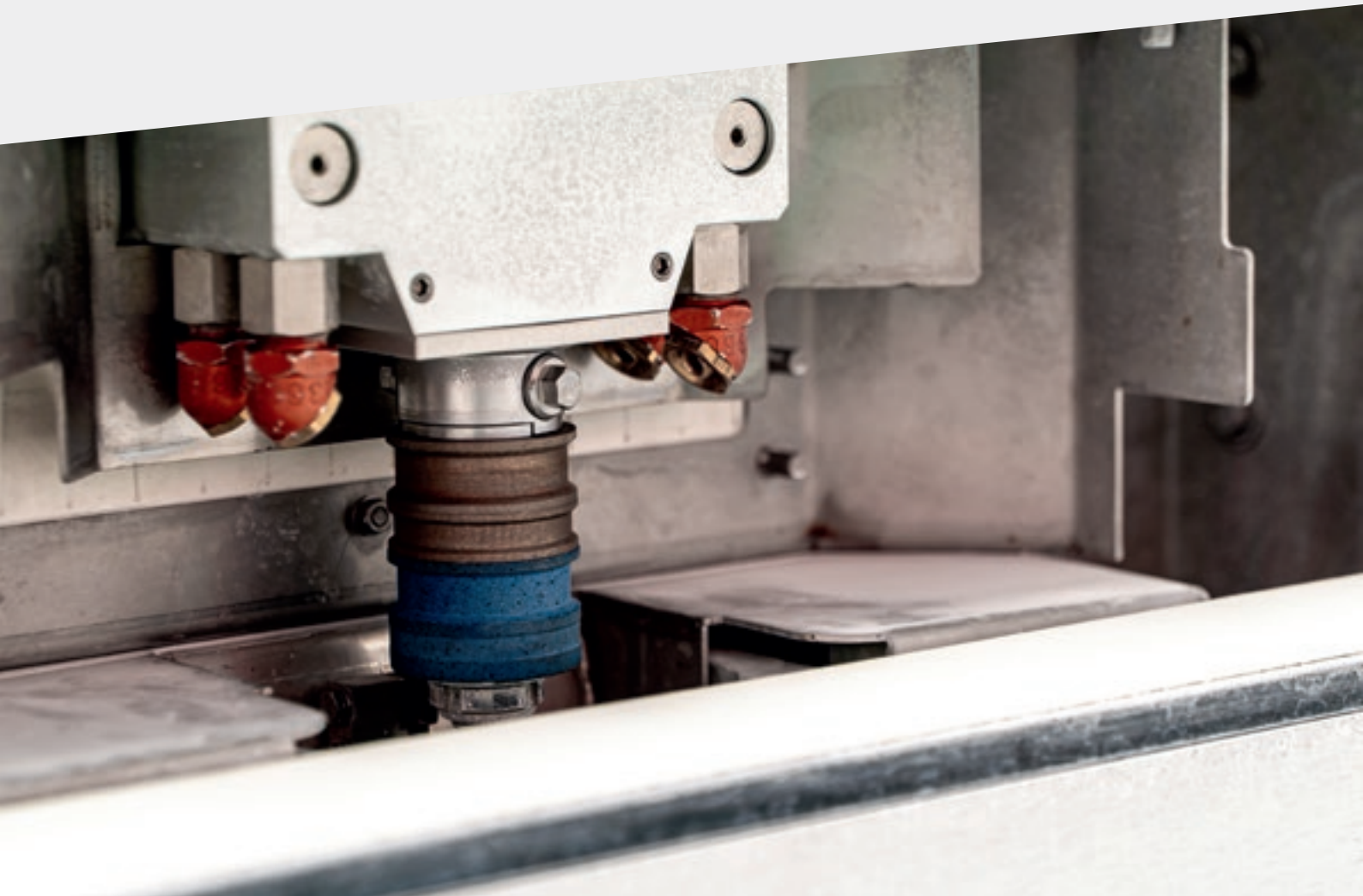
Interpolated axes actioned by brushless motors.

The corner-rounding system is fully integrated in the crosspiece structure.



QUICK TOOLING

System for quick tool change
on radiusing device (Biesse patent).



REVOLUTIONARY, INNOVATIVE TECHNOLOGY
FOR OPTIMUM FLEXIBILITY DURING THICKNESS
CHANGES WITH QUICK SET-UP.

TOOL REPLACEMENT TIMES LESS
THAN 2 MINUTES.

Thanks to this solution, the operator can easily
replace the tool-holder shank directly from inside
the machine, raising the presser without having to
remove the casing or upturn the spindle unit.



Manual system to lock/release the grinding wheels on the shank.

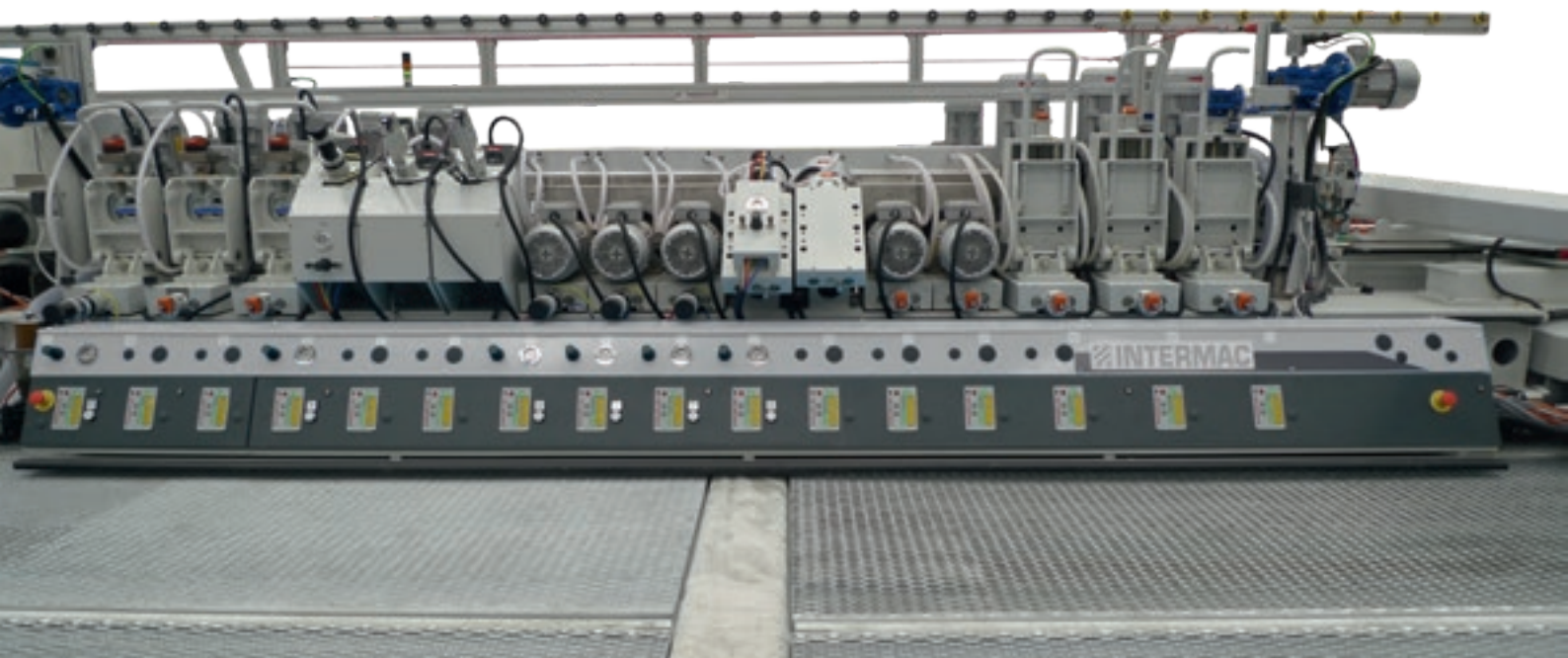


External shank-holder magazine with up to 5 positions for each machine side.



WIDE RANGE OF CONFIGURATIONS

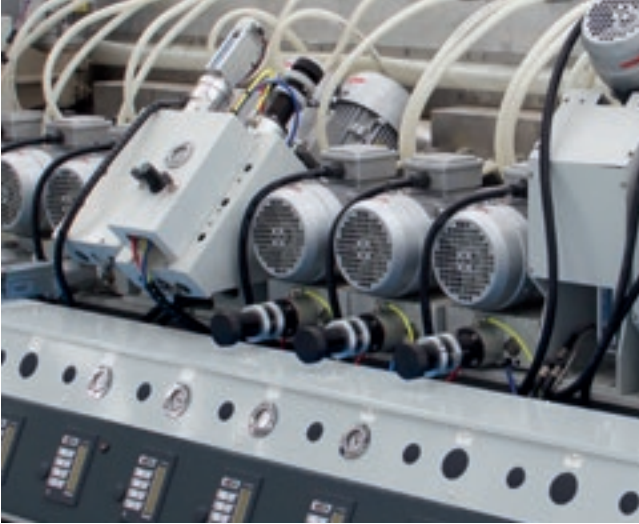
The wide configurability of the machine, completely customizable, up to 17 spindles on each side in the machine allows for special edge processings which are applied in many fields from furniture to structural glass and partition walls.



The machine opening dimensions vary in accordance with the specific requirements of the customer, and may range from 1000 to 8000 mm.



Intermediate bars with automatic positioning function
It is possible to automate the positioning of the bar or intermediate bars. Recommended solution for low serial production.



The proportional valves for automatically managing the pressure on the polishing tools in accordance with the thickness notably reduce the machine setting times



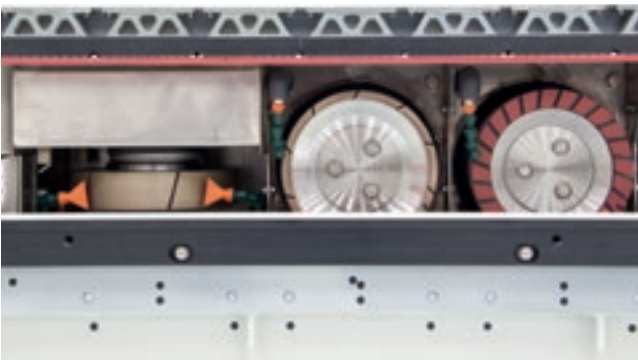
The automatic adjustment of the reference line to remove the glass according to the thickness prevents the operator from intervening manually.



The drainage of waste waters is carried out in a simple and effective way.

CUSTOMISATION IN ACCORDANCE WITH THE CUSTOMER'S PRODUCTION NEEDS

Innovative systems such as the diamond grinding wheel presetter, the automatic polishing pressure management system, the motorised reference lines and various other options allow to reduce the setting times of the lines simplifying their use.



Diamond grinding wheel presetter

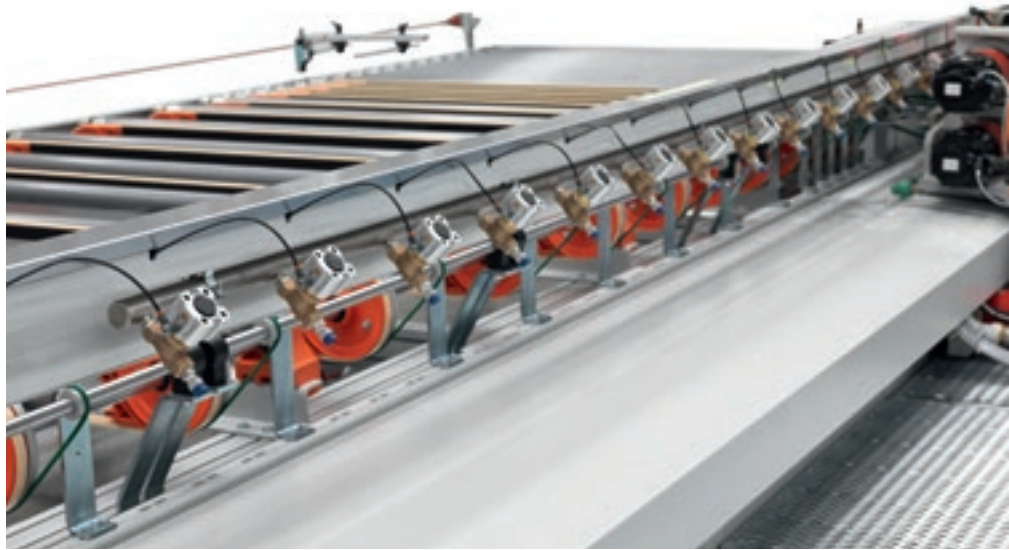
Possibility to equip the machine with the automatic motorisation of all diamond spindles, including the upper and lower aris, in order to ensure maximum control over the amount of material removed, as well as over tool wear.



Oscillating peripheral grinding wheel

The oscillating peripheral grinding wheel allows the optimal execution of all those operations that require big removals of material like in case of thick glass sheets and laminated or stratified glass. Vertical oscillation is controlled by NC according to the glass thickness and guarantees homogeneous consumption of the grinding wheel.

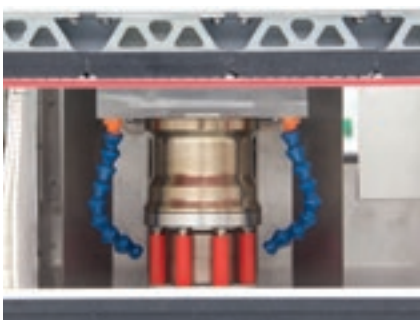
Partialized spraying unit, placed before the blower at the outlet of the line machine, helps to reduce the glass powder before entering the washing machine.



Belt cleaning brush for preventing scratches on the surface of the glass.



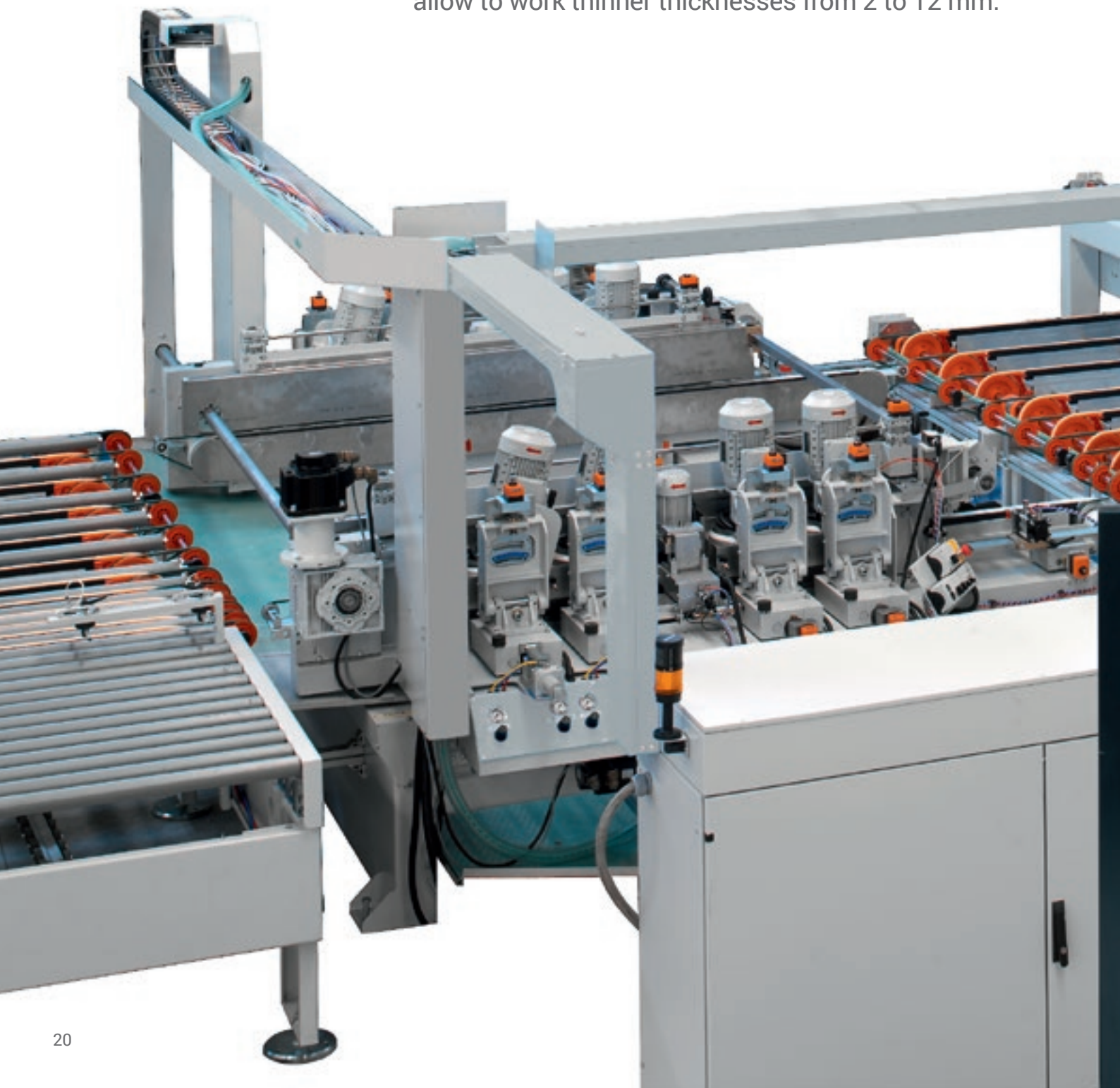
The glass width measuring system makes the measuring of large glass sheets easier and more accurate



The corner cutting unit removes the sharp corners of the glass sheets and it is available in the pneumatic and electronic version (patented).

BUSETTI P SERIES: THE IDEAL SOLUTION FOR WORKING WITH THIN MATERIALS

The Busetti P series is the range of machines for the processing of pencil edge and flat edge with arris and allow to work thinner thicknesses from 2 to 12 mm.





Pencil edge.



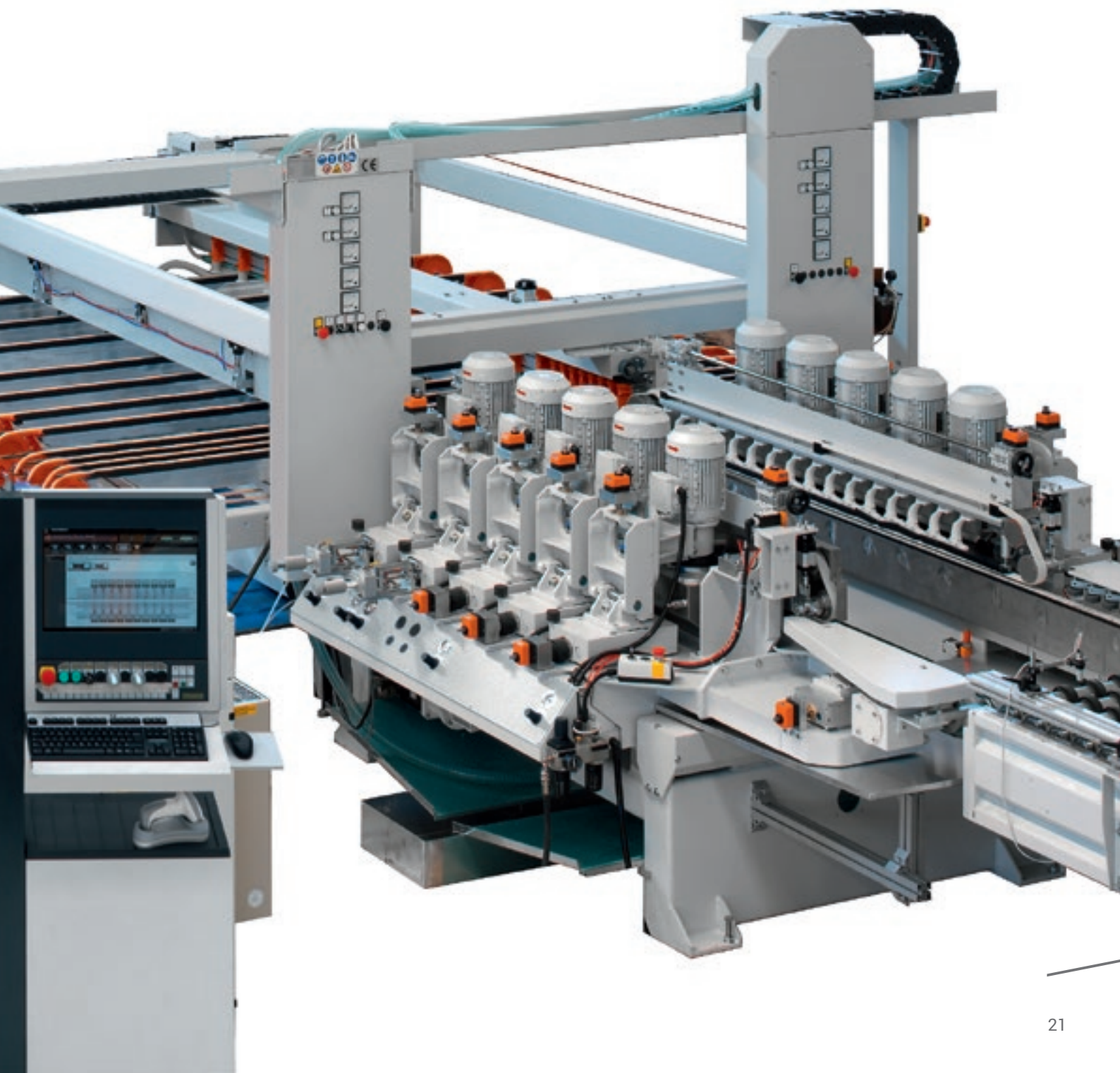
Pencil edge with grooving on the surface.



Flat edge with arris.

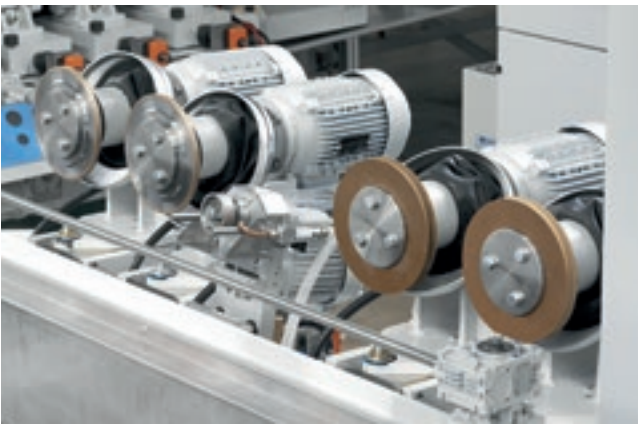


Pencil edge with arris.

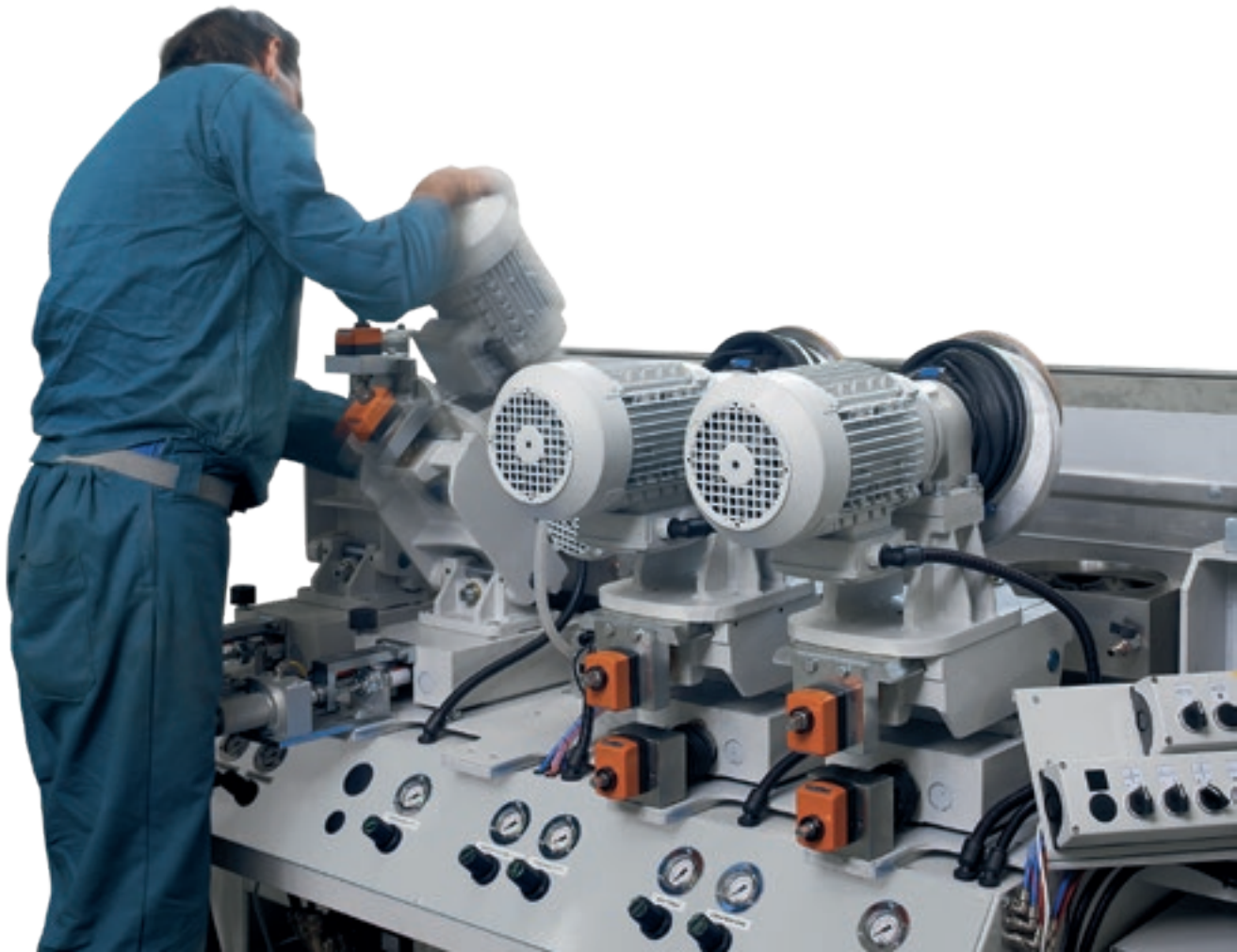


HIGH-QUALITY COMPONENTS

P series spindles are built with the same components of the F series spindles.



Cross-bridges from 2 to 6 grinding wheels, with quick, easy-access tool changes.





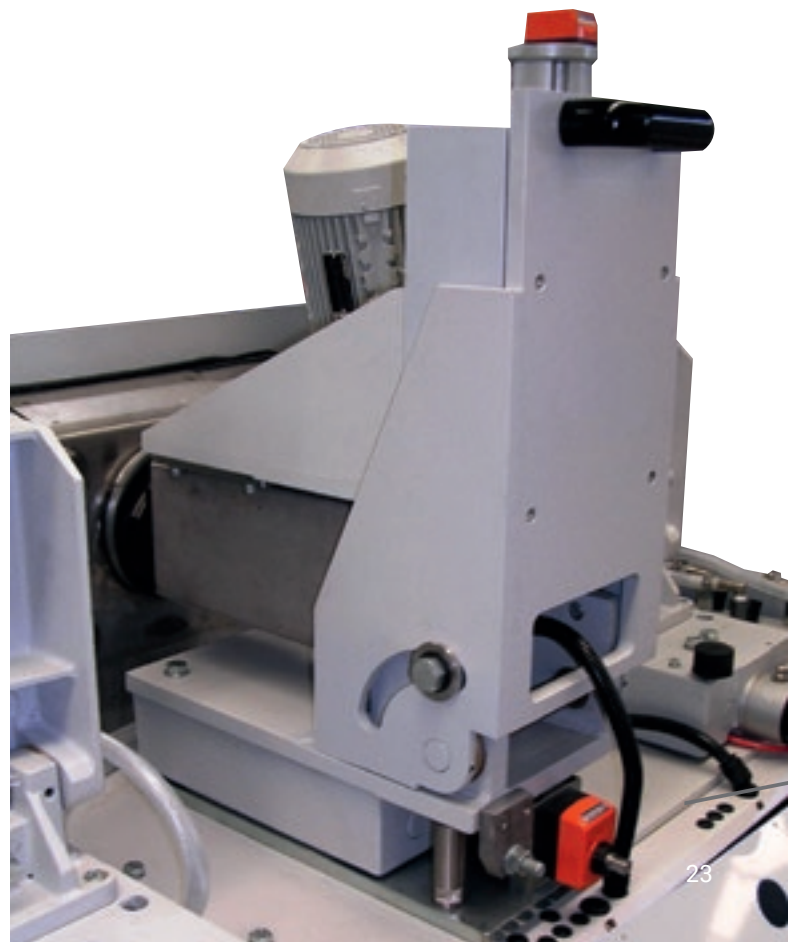
Working up to 10 m/min
Electronic corner cutting spindles to execute chamfers and corners up to 10m/min.



Grooving spindle for engraving on glass surface



Maximum flexibility thanks to the possibility of creating a version with up to 4 over-stuck grinding wheels, to allow a quick thickness change of the glass to process.

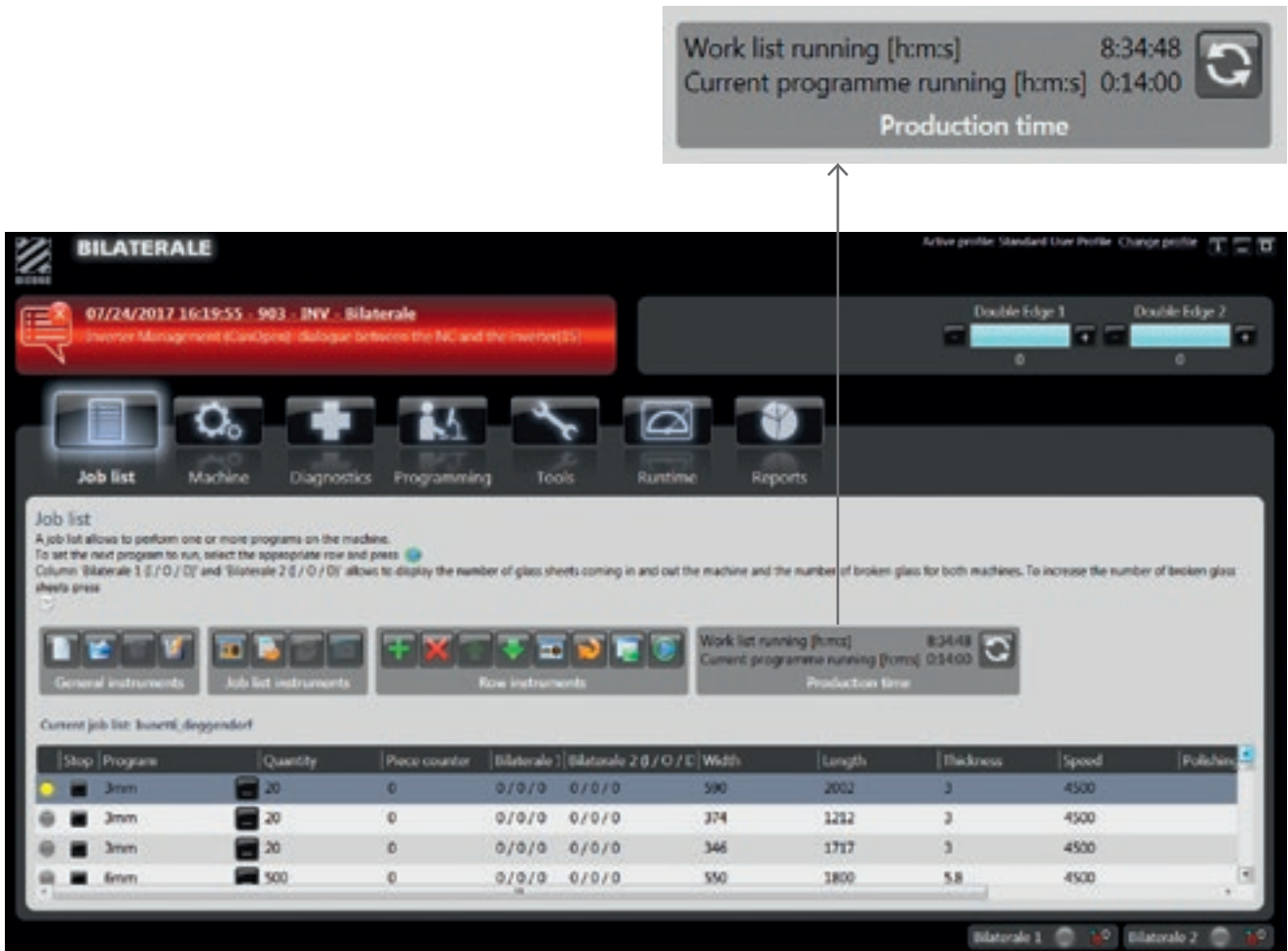


INTEGRATED SOFTWARE THAT IS BOTH INTUITIVE AND EASY TO USE

When integrated with smart software, Biesse solutions serve to minimise operator intervention, ensuring a clearer overview of the entire process, as well as greater levels of safety. A product which leading glassworks facilities would struggle to do without.



The Busetti range has evolved over time, transforming itself into a smart solution, which, thanks to the software integration, is able to control itself autonomously.

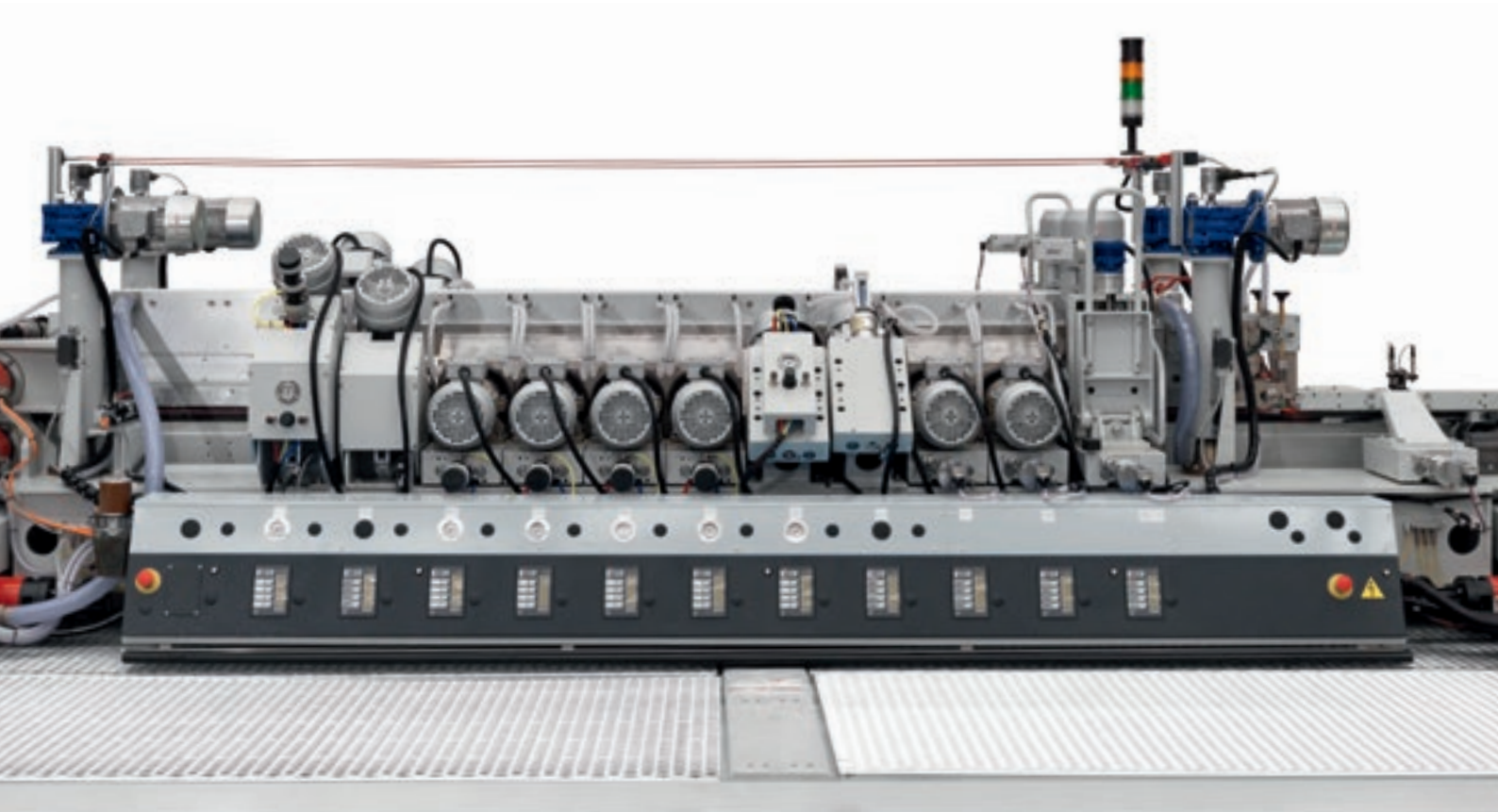


- It allows to calculate in advance the production times of a working list required by the Customer.
- It optimizes programme and machining operation change-over time.
- Possibility to apply bar-code reading systems that can be interfaced with management systems.
- Fundamental in low-serial production to estimate cost and time of a production batch.



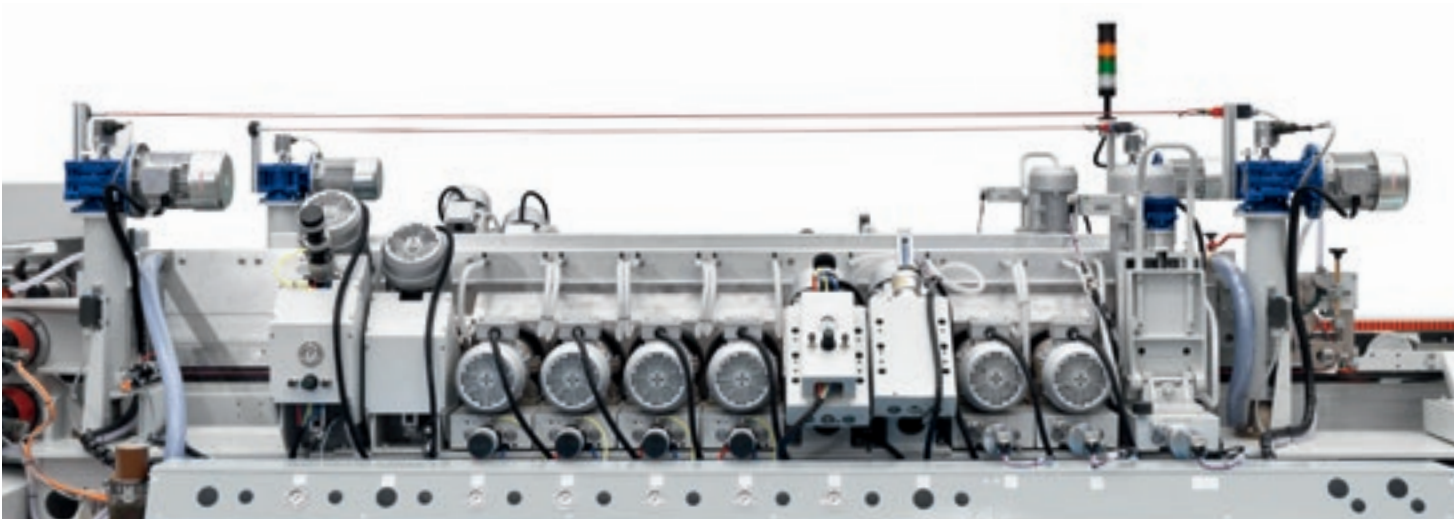
PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

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.



The movement of the crosspiece is protected by an external anti-collision bumper.

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



Internal anti-crush cables during the movement of the crosspiece.

All dangerous moving parts are protected by safety grid barriers, and ensure maximum operator safety.



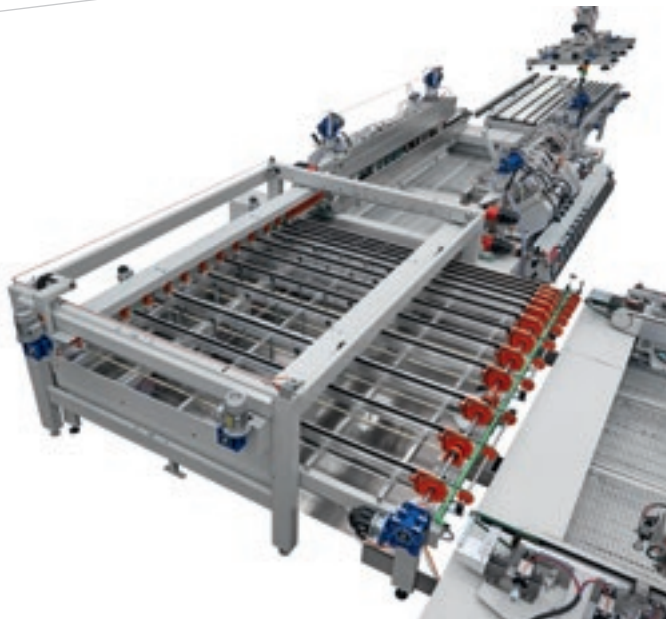
AUTOMATED LOADING AND OFF-LOADING SOLUTIONS



The loader automates the process of loading the glass into the machine, and represents the ideal solution for companies that need a high rate of production. A range of loading and unloading devices is available, to meet the various performance requirements. Rotating platforms which minimise pallet change times are also available.

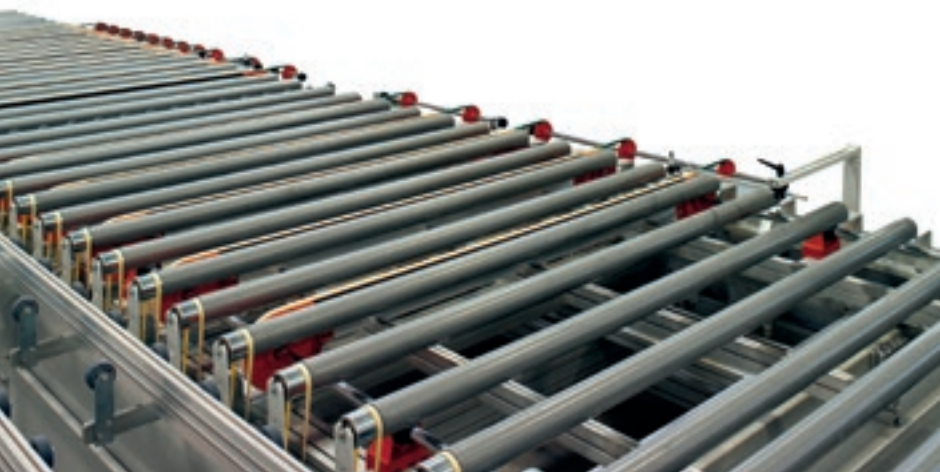
The tilting table allows sheets of larger dimensions to be loaded and off-loaded.





Transfer systems

Extensive experience in the development of dedicated solutions for handling structural glass plates of 3210 x 8000 mm.



Deviator transfer on out-feed

It allows the pieces that have just been processed to be transported towards a washing machine.

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

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

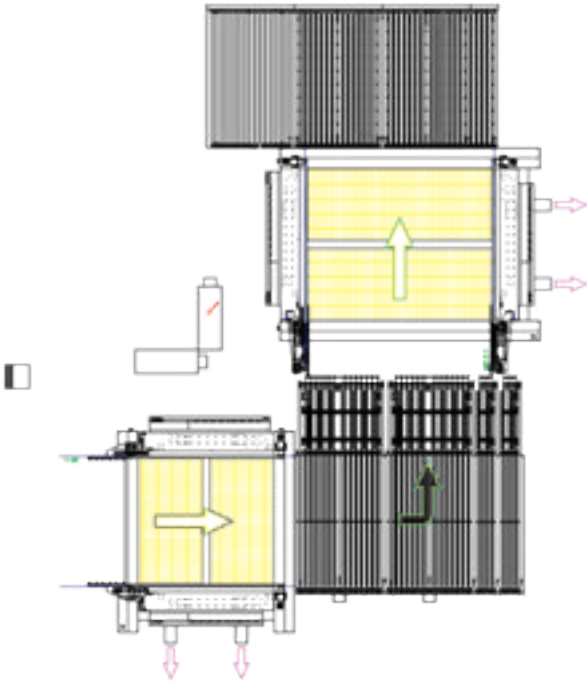
88%

OF CASES SOLVED WITH
THE FIRST ON-SITE VISIT

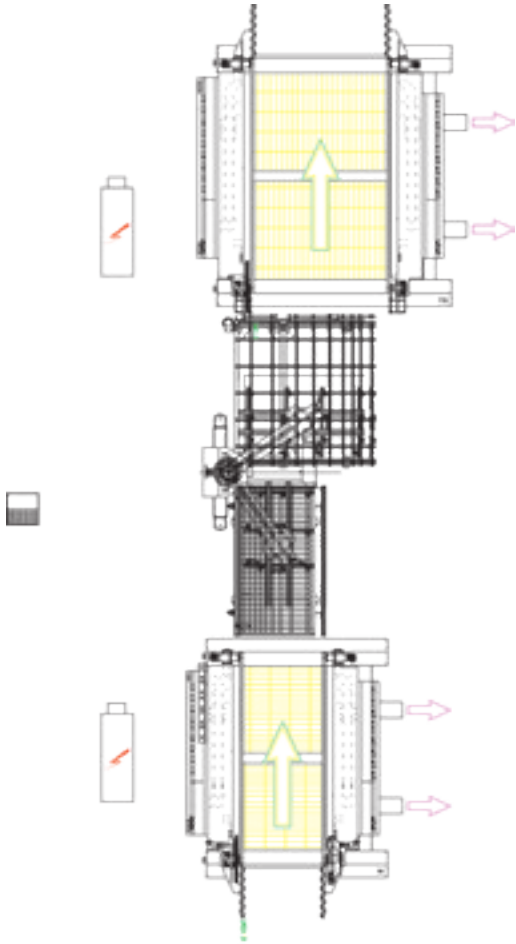
IN-LINE INTEGRATION



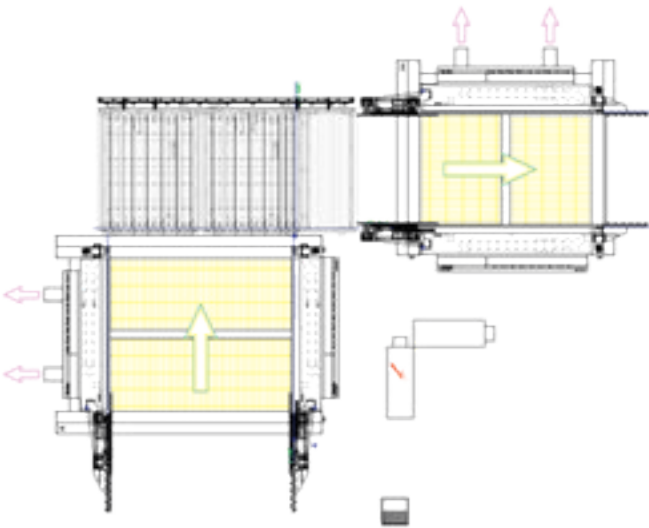
"U" disposal line



Straight line

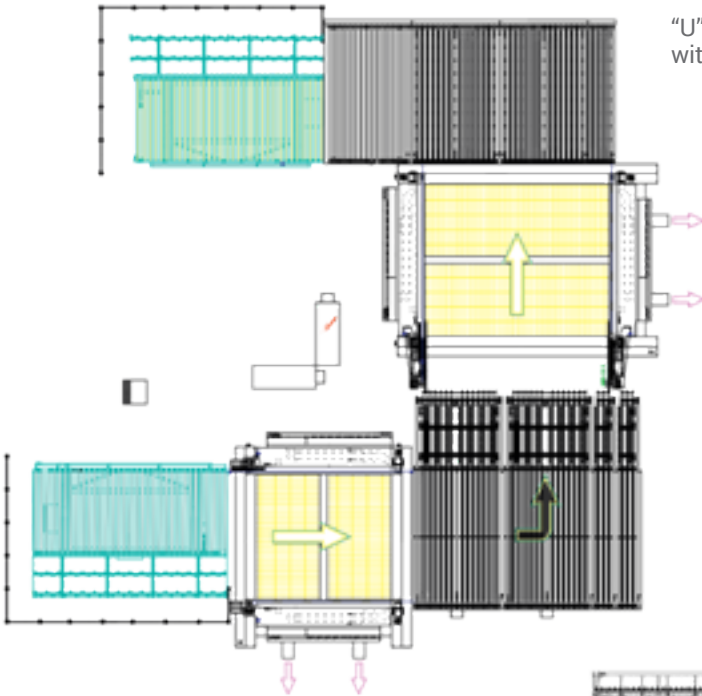


Reverse Line





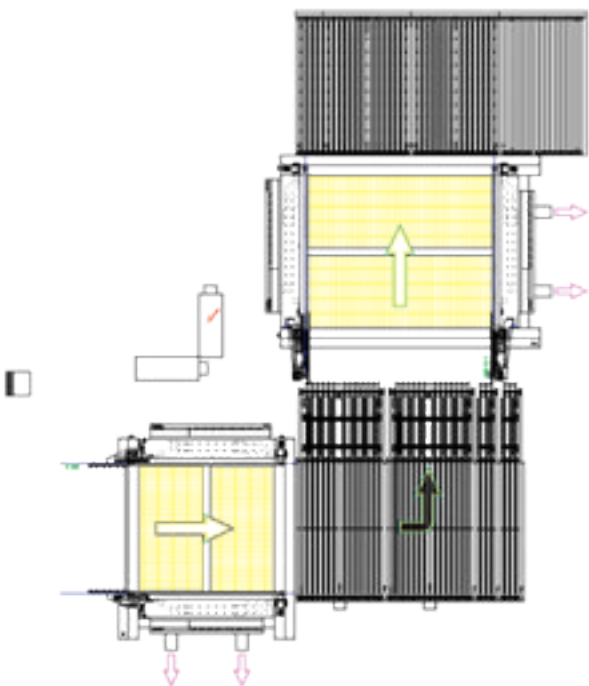
"U" disposal line with tilting tables



"U" disposal line with loader and off-loader

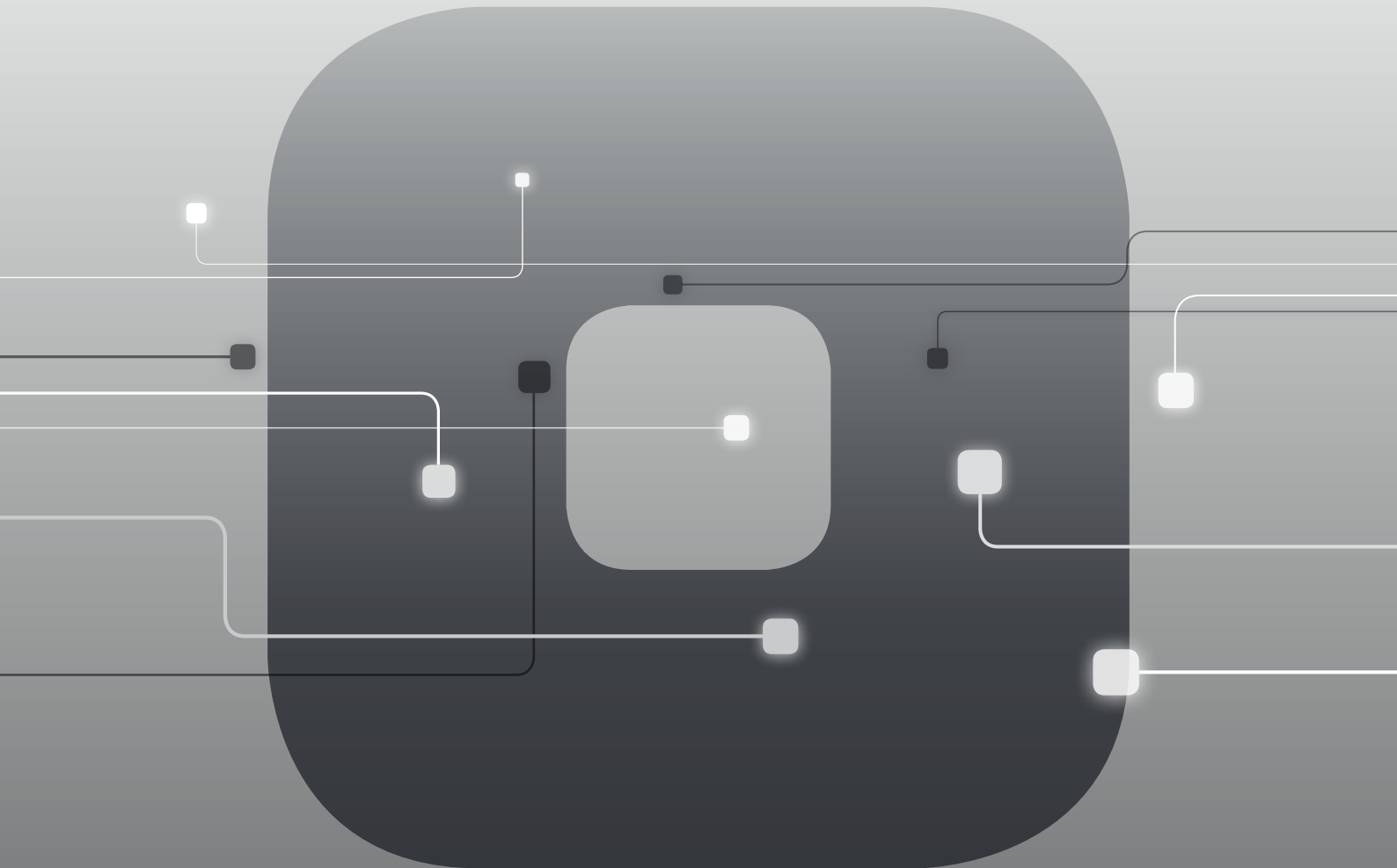


"Z" disposal line



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. The 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, optimize their processes and improve their results.

And that means being 4.0 ready.

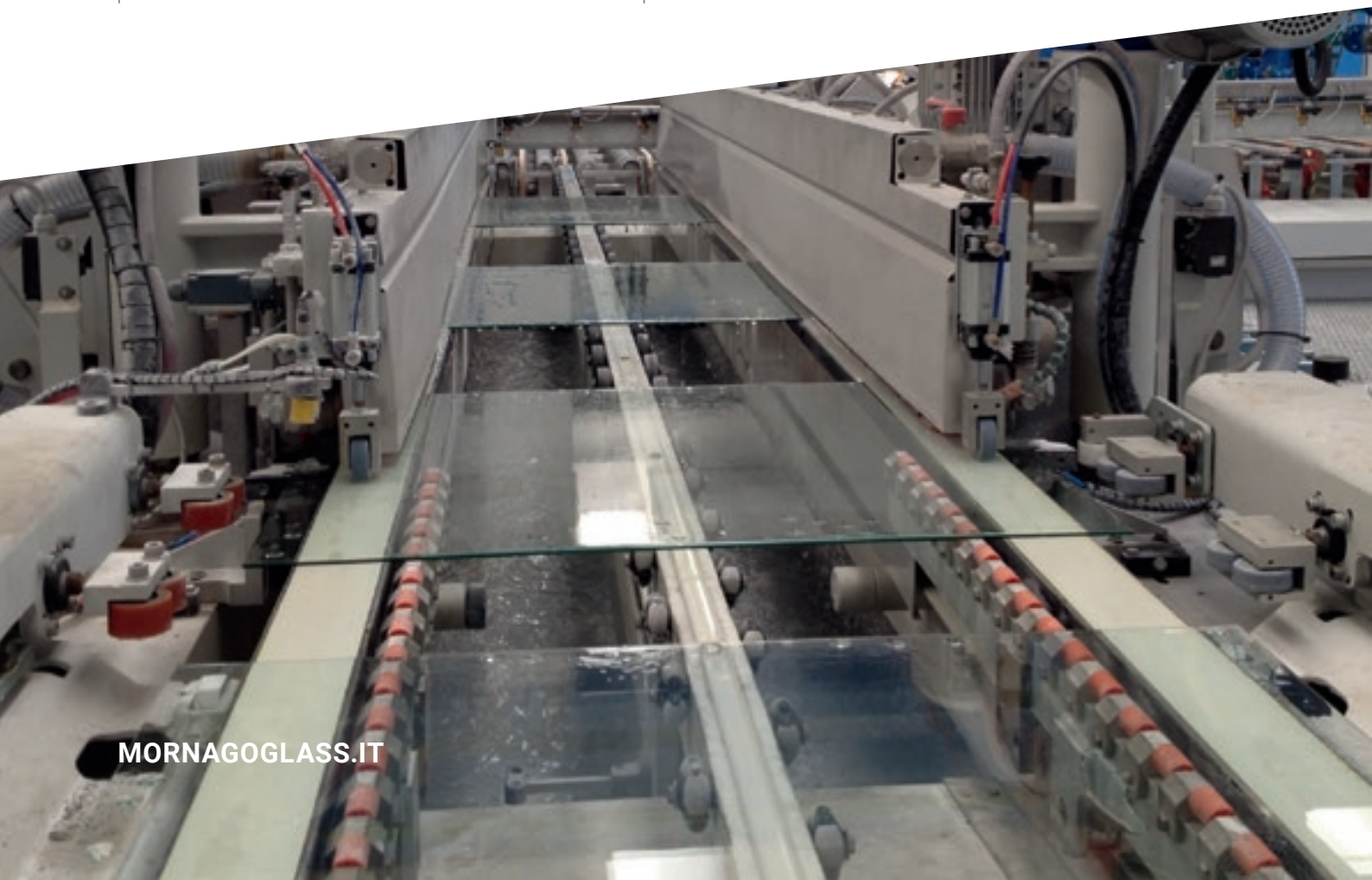
MADE WITH BIESSE

MORNAGO GLASS CUSTOMISED TECHNOLOGY

With the innovative grinding, vertical boring and in-line milling system, designed by Intermac specifically for Mornagoglass, the Varese-based company is able to produce glazing solutions for a wide range of applications, via an extremely flexible and reliable production process

"Normally, double-edging machines work horizontally, and so glassworks companies tend to buy horizontal drilling machines, leaving them with two separate solutions that have usually been supplied by different manufacturers: we, however, decided to place our trust in the inspired idea that Intermac

offered us - a complete and fully-integrated island for grinding, vertical boring and milling, specially designed for our applications."



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.

[biesse.com](https://www.biesse.com)



