RO VER B EDGE

MACHINING CENTRE

Biesse

WORKING CENTRES FOR SHAPED EDGEBANDING

THE MARKET EXPECTS

The market demands a change in manufacturing processes, enabling companies **to accept the largest possible number of orders**. This is coupled with the need to maintain high quality standards whilst offering product customisation with quick and defined delivery times, as well as responding to the needs of highly creative designers.

BIESSE RESPONDS

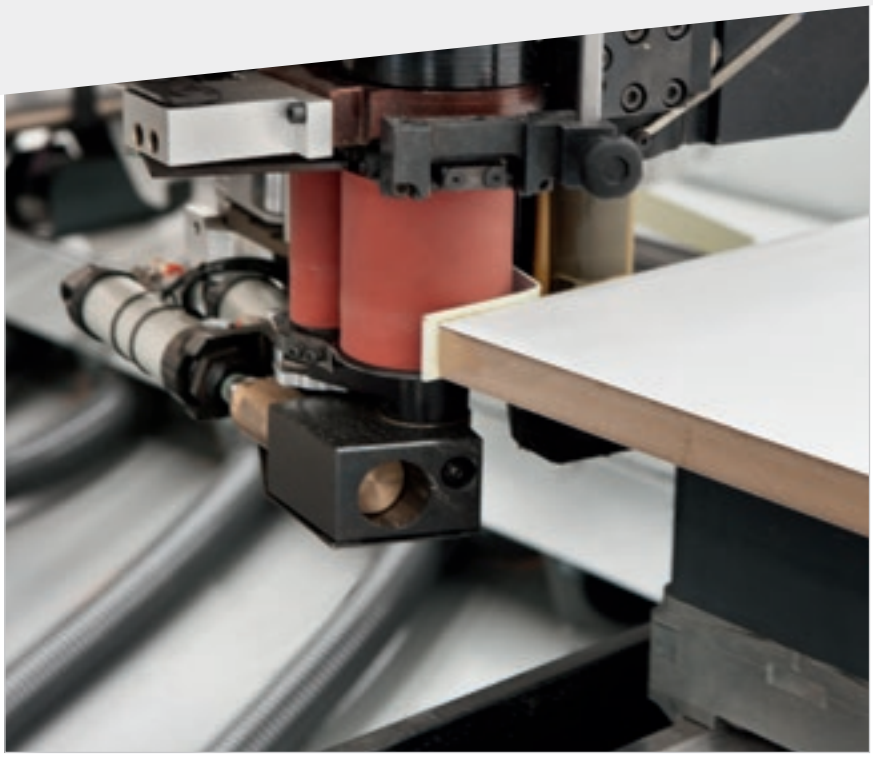
Biesse meets these requirements **with technological solutions** that enhance and support technical expertise as well as process and material knowledge. Edgebanding machining centres from the **Rover B Edge** range allow users to carry out machining operations to shape and edgeband panels on a single machine. The wide range of sizes, availability of working units and technologies, means that the Rover B Edge is ideal for medium to large as well as prototype production environments.

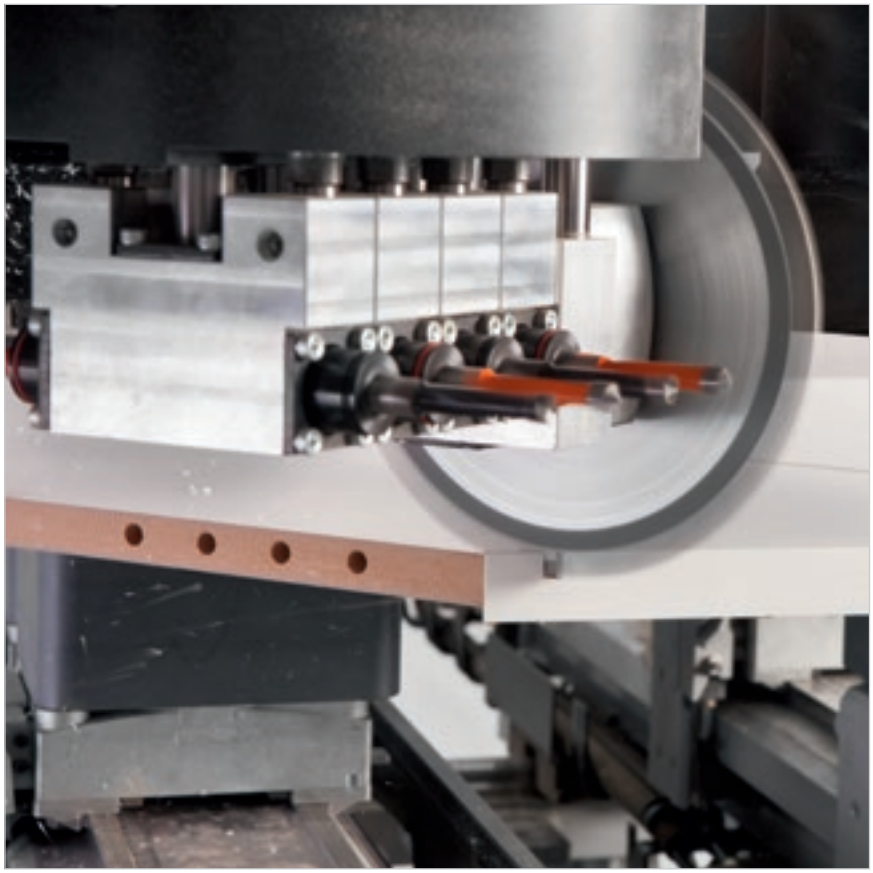
ROVER B EDGE

- UNIQUE TECHNOLOGICAL SOLUTIONS FOR OPTIMAL PERFORMANCE
- OPTIMAL EDGE GRIP
- FULL WORKABILITY WITH LARGE PANELS
- REDUCED TOOL CHANGEOVER TIME
- OPTIMAL FINISH QUALITY
- HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

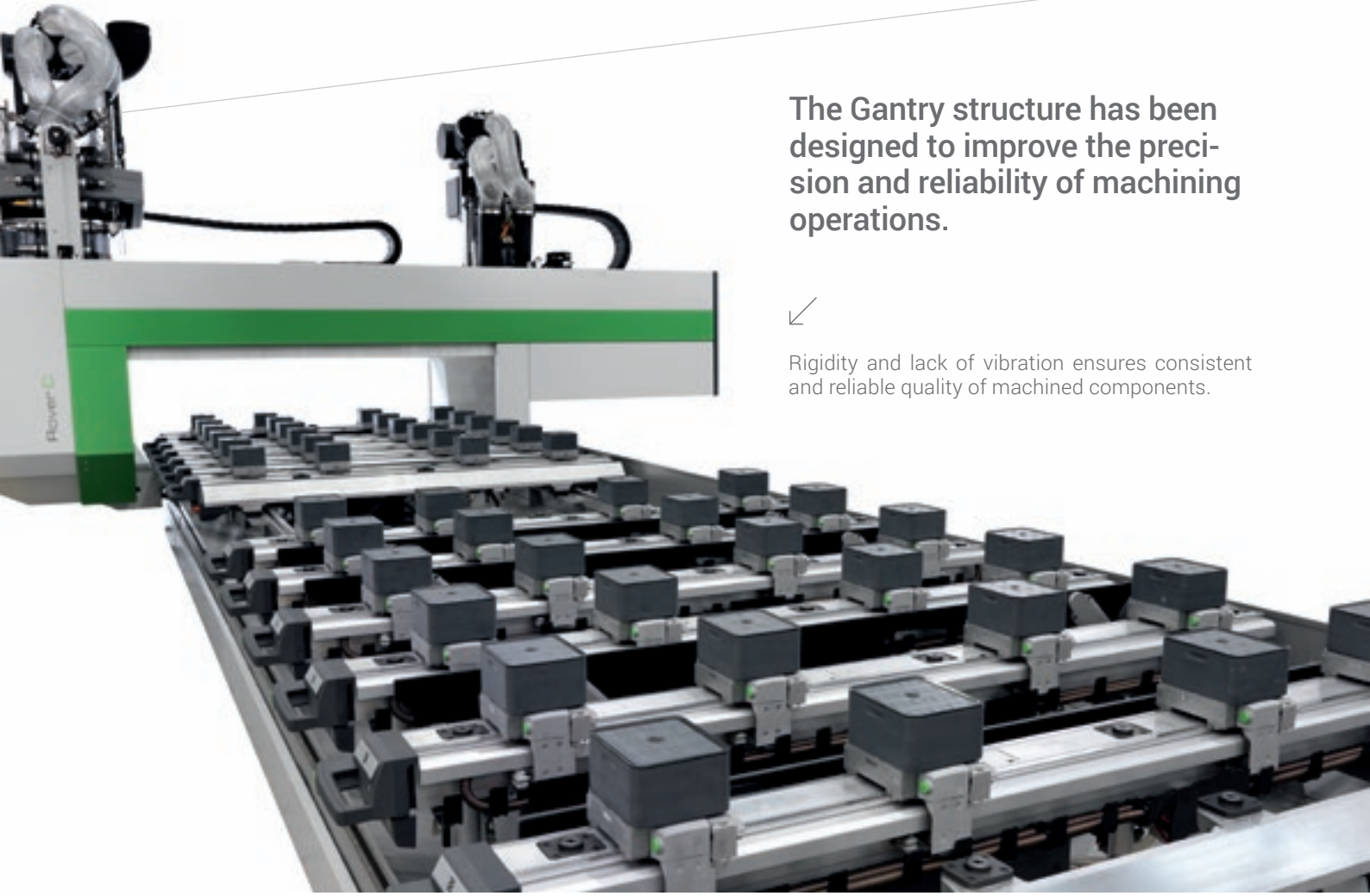
HIGHER STANDARDS ON ANY APPLICATION

Rover B Edge allows you to carry out a wide range of operations on a single machine, ensuring quality, precision and absolute reliability over time.





MAXIMUM WORKING PRECISION MAINTAINED OVER TIME



The Gantry structure has been designed to improve the precision and reliability of machining operations.

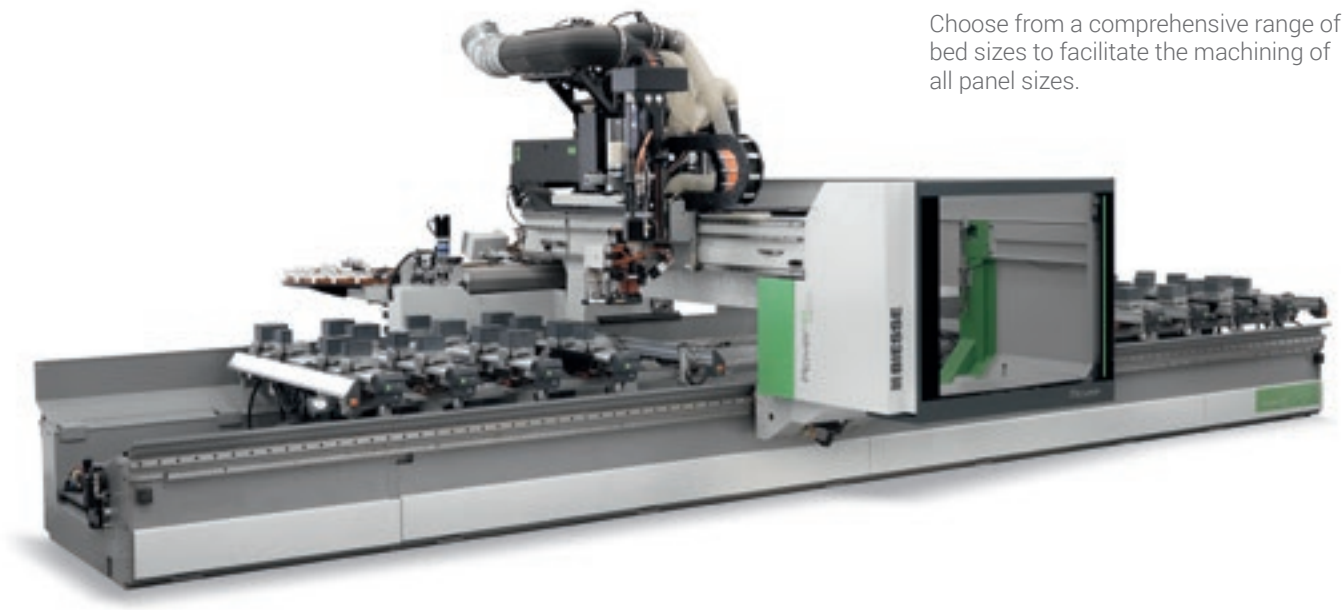
Rigidity and lack of vibration ensures consistent and reliable quality of machined components.

The double X-axis motorisation supports high speeds and accelerations whilst ensuring high quality finish and precision.

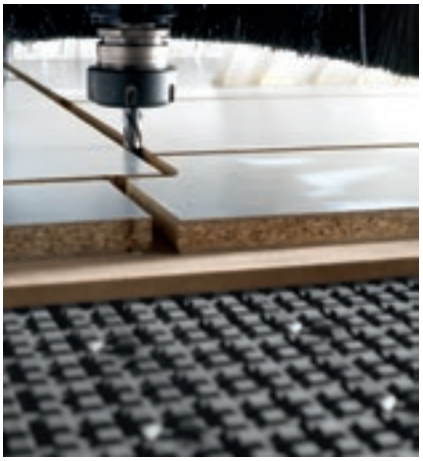
FULL WORKABILITY WITH LARGE PANELS

The rigid structure of the machine and the width of the Y axis allows users to machine panel widths of up to 2208 mm with all available tools.

Choose from a comprehensive range of bed sizes to facilitate the machining of all panel sizes.

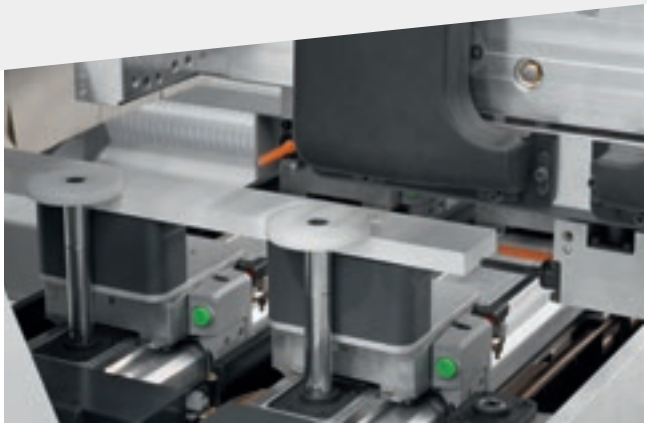


Two machines in one: the full functionality and quality of a true pantograph table are guaranteed by the CFT (Convertible Flat Table), which supports the machining of thin panels, nesting and folding.



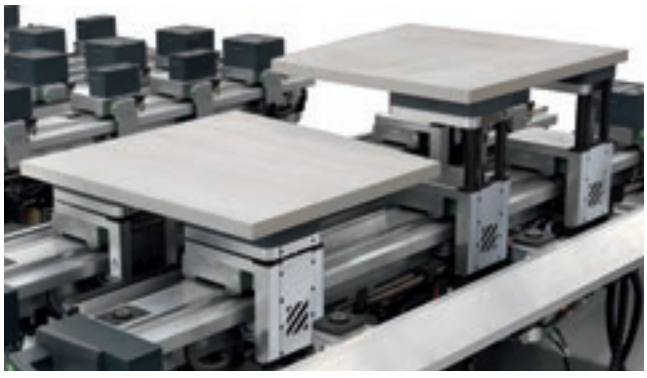
SIMPLE, QUICK AND SAFE TOOLING OF THE WORKING AREA

Locking systems **based on a vacuum**.



Easyclamp locking system for machining narrow pieces.

Uniclamp and Hyperclamp pneumatic locking systems with quick release, for firm and precise locking.



HYPERPOD: FLEXIBILITY OF MACHINING OPERATION

Hyperpod is the innovative positioning system that allows one to take advantage of the height of the work table.
By raising the pieces that make up a program, the Hyperpods make it possible to complete machining operations that were previously possible only with wider machines.

- **Optimisation of the work area**
- **Efficient manufacturing process**
- **Compactness**
- **Flexibility of machining operation**

The working area guarantees the locking of pieces of any shape or size. The tooling of the working area is simple and quick.

Easy Zone
Supplementary vacuum system for the quick and easy clamping of several elements on the machine.

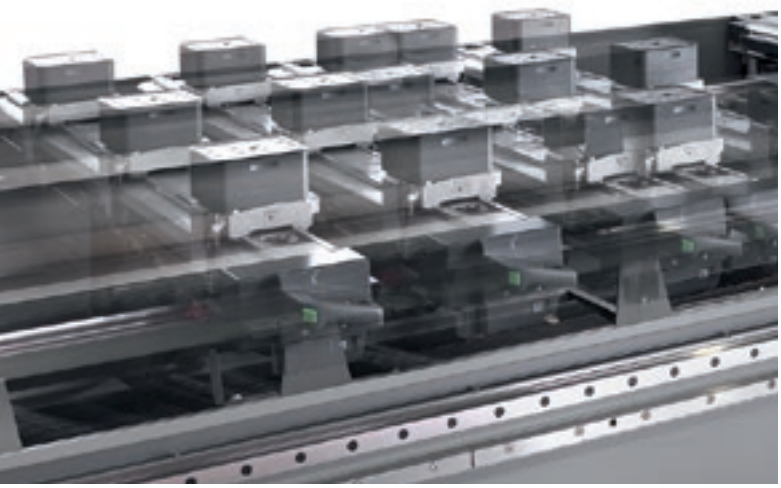
Multi-area
Allows several elements to be locked in a simple, fast manner using a vacuum or Uniclamps and Hyperclamps.

Activation of locking systems
Thanks to a line of photocells on the front side of the base, the locking systems can be activated from any point on the machine.

DIFFERENT POSITIONING SYSTEMS IN THE WORKING AREA, TO SUIT EACH INDIVIDUAL PROCESS

ATS (Advanced Table-Setting System)
For the quick and easy manual positioning of the clamping systems.

SA (Set Up Assistance)
For the quick, easy and controlled manual positioning of the clamping systems. The linear sensors in the work table, along with the collision control function, reduce the risk of collisions



EPS (Electronic Positioning System)
For the quick, automatic positioning of the clamping systems in the programmed positions. The motors, along with the collision control function, ensure controlled positioning movements to reduce the risk of collisions.

FPS (Feedback Positioning System)
Evolution of EPS, with unique linear sensors that ensure extremely precise locking system positioning and can tell you those positions at any moment, even after manual interventions by the operator. The Self Learning function allows the manual positioning points of the vacuum modules and pneumatic locking clamps to be automatically stored in the program by means of a simple command.

XPS
POSITIONING SPEED AND PRECISION

XPS - EXTREME POSITIONING SYSTEM is the first solution on the market for the best results in terms of positioning speed and precision. Fitted with a motor for every work table and every carriage, it enables the simultaneous positioning of all the locking systems. XPS not only positions the vacuum modules and pneumatic locking clamps, but also helps the operator in the loading phases and moves the pieces during program execution without any need for the operator to intervene manually. The MULTI-ZONE system (fitted as standard) enables the creation of up to 16 fully independent locking areas.

OPTIMAL EDGE GRIP

Optimal edge pressure quality during gluing on shaped panels thanks to the twinroller edge pressure system.

Similar to straight line edgebanding machines, **the glue is applied directly onto the panel** in order to ensure optimal adhesion quality. It supports the use of thin or transparent (3D) edges, as well as thicker and sturdier edges.

Glue feed occurs during the machining process via the granule feeding system within in integrated glue head. With the glue being stored in granules, only the required quantity is released for melting. This ensures optimal adhesion whilst preserving the glue characteristics.

FIRM, STABLE ADHESION

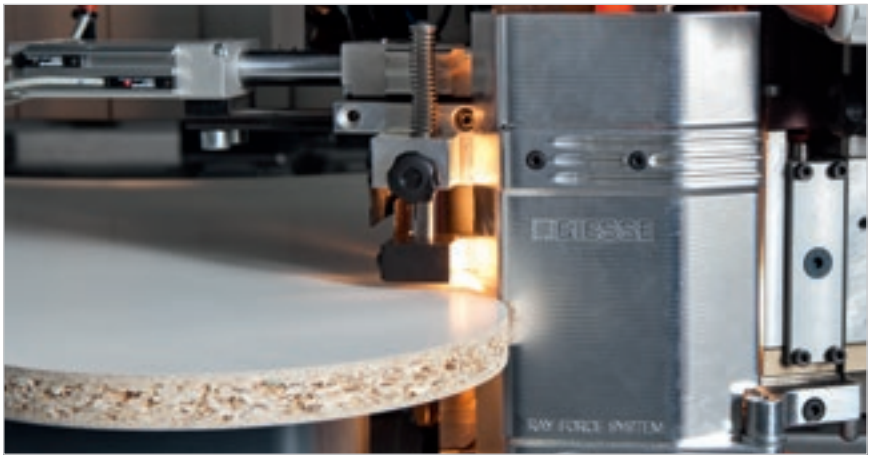
Biesse offers specific solutions for the use of polyurethane glues resistant to heat, humidity and water.

PU granule adhesives.

Additional glue pots fitted with quick-release electrical system for PU granule adhesives.

Nordson pre-melter for high production needs. An exclusive direct injection system for non-stop machining operations at high speed and consumption levels.

Biesse offers specific solutions for the highest quality of the finished piece through the use of RayForce System zero-joint technology.



RayForce System equipment, interchangeable with the use of EVA or PUR glues, for the highest quality of the finished product.

RAY FORCE SYS TEM

UNPARALLELED TECHNOLOGY

Biesse's high technology responds to increasingly complex market demands by developing an all-new technology like none other of its kind for the application of edges on shaped panels: RAYFORCE SYSTEM. Its revolutionary nature is based on an exclusive technique which uses infrared lamps to fuse a reactive layer. A solution that is comparable to AirForce System technology applied to linear edge.

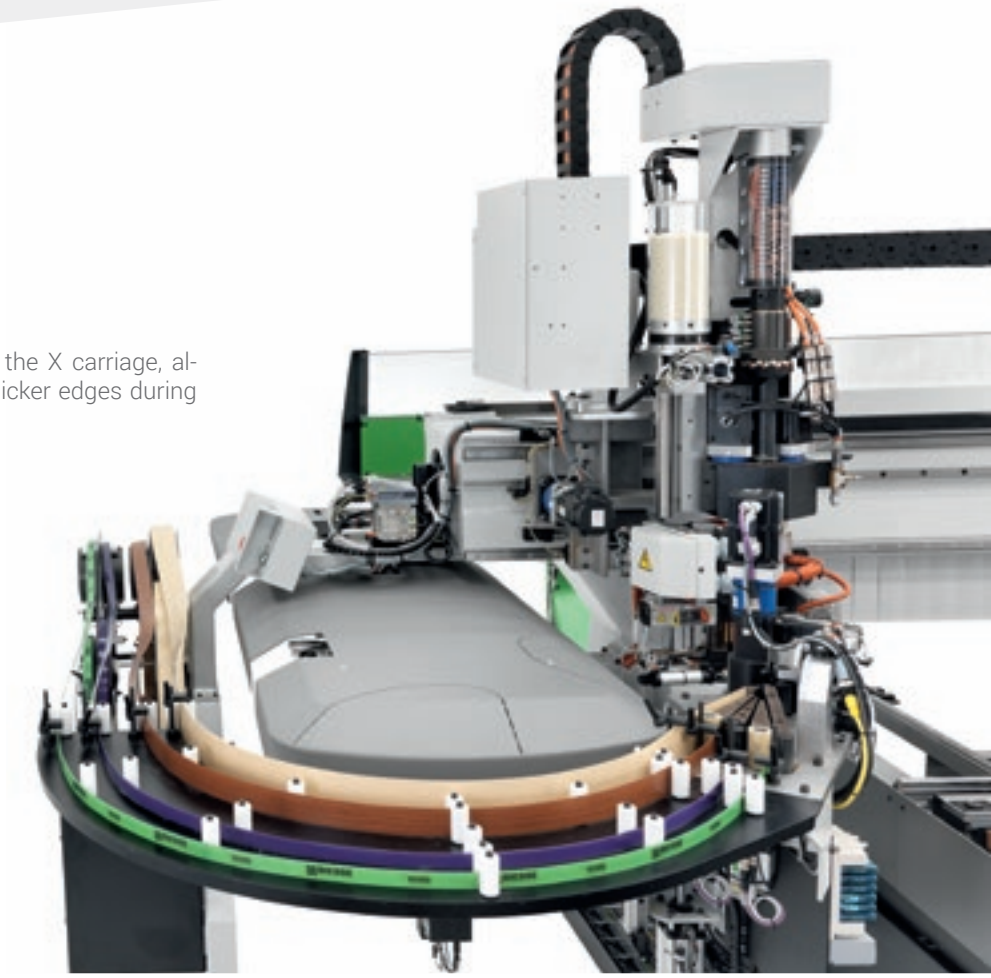
The advantages are unmatched:

maximum quality of finish,
lower electrical consumption,
ease of use.

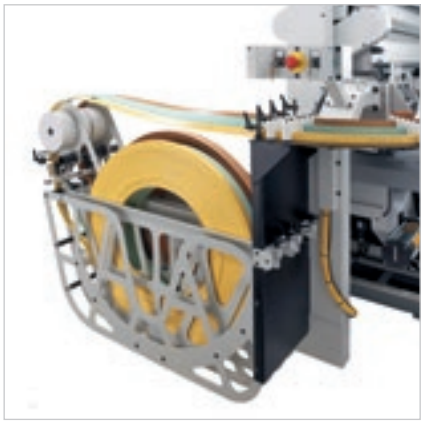

BIESSE
RAY FORCE SYSTEM

SOLUTIONS THAT INCREASE MACHINE PRODUCTIVITY

The automatic edging feeder, mounted on the X carriage, allows the user to change between thin or thicker edges during the same machining cycle.

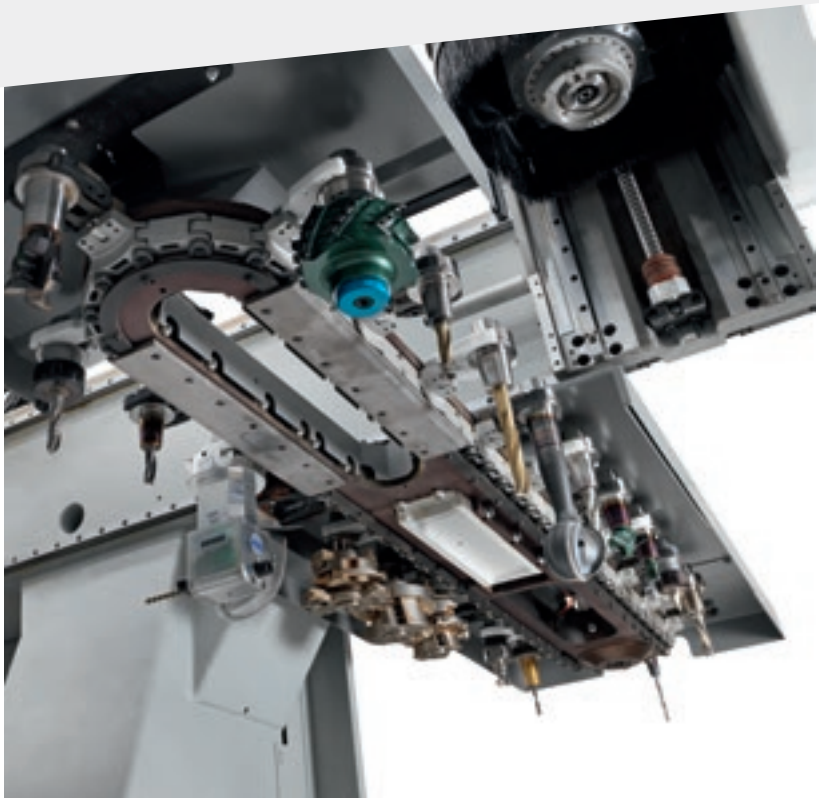


Quick change of the coils with the banding material container positioned outside the safety fences.



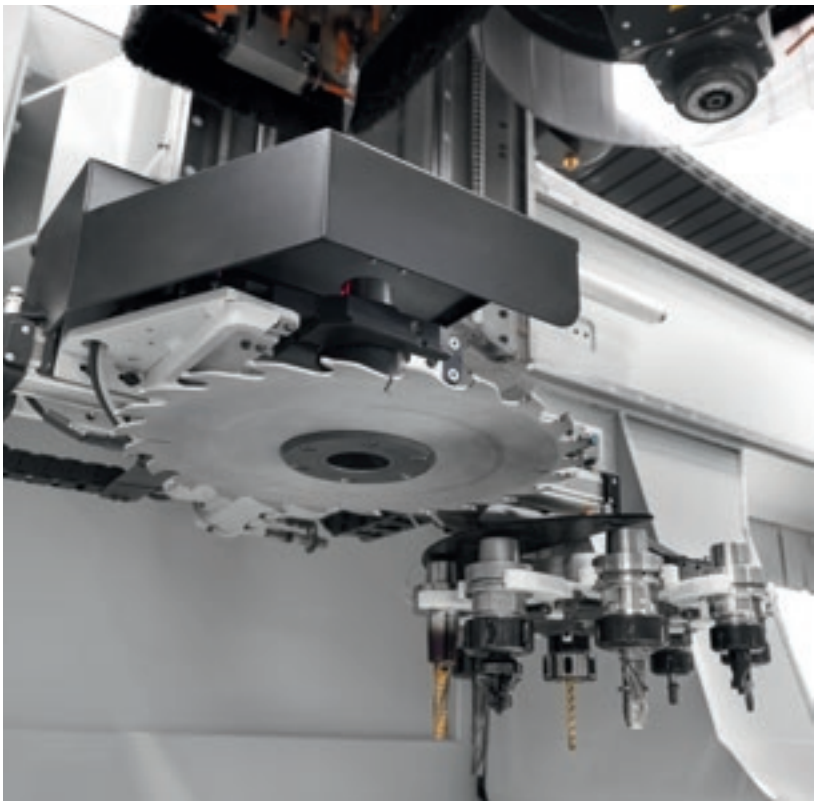
Thin or thick edges, either pre-cut or coiled, with automatic or manual feeding.

TOOLING SIMPLICITY AND A MULTITUDE OF TOOLS READY TO HAND



Up to 92 tools always ready for any type of machining operation, with automatic loading via the working unit.

Chain magazine with 33 places



Single-place magazine and revolver tool magazine with 6 places

Revolver tool magazine with 16 places

The **Pick Up** station supports automatic tool-holder rack tooling.

MANY SOLUTIONS FOR PERFECT FINISHES

AGGREGATES FOR THE FINISHING OF THE UPPER AND LOWER PART OF THE EDGE APPLIED ON THE PANEL

ET60C

Trimming aggregate, 30 mm or 18 mm minimum internal radius with flat knives.

ETG60C

Trimming aggregate, glue scraper, 30 mm minimum internal radius.

ETS60C

Trimming aggregate, non-stick liquid, 80 mm minimum internal radius.

EGS60C

Edgebanding strip scraping aggregate, glue scraper, 30 mm minimum internal radius.

EF60C

Edgebanding strip finishing aggregate with three functions: trimming, edgebanding strip and glue scraping; 30 mm minimum internal radius.

Bench to facilitate the adjustment of the edgebanding strip finishing aggregates and can be used externally to the machine.

A COMPLETE RANGE OF AGGREGATES FOR ALL MACHINING OPERATIONS

Trimming/ rounding tool

Trimming aggregate, 215 mm blade

260 mm blade for 5 axes edge trimming

300 mm blade for 5 axes edge trimming

Edge trimming/ rounding aggregate with horizontal copying function

Finishing aggregate of the edgebanding applied on corners that end up on post-formed shapes.

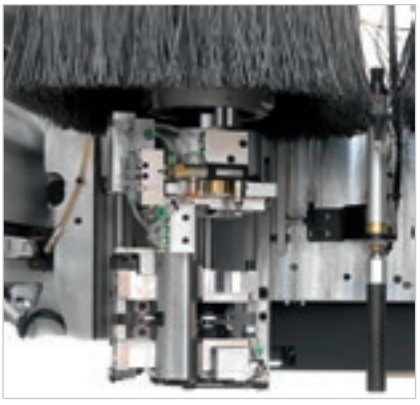
TOP-QUALITY FINISHED PRODUCT

Blower and anti-adhesive liquid dispensing aggregate.

Trimming aggregate with non-stick liquid delivery.

Brusher aggregate with glue removal liquid dispenser.

Cold or hot air blower unit to brighten up the colour of the edgebanding strip.



Blower unit.

A COMPLETE RANGE OF AGGREGATES

Aggregate for milling of 90 internal corners.

ROVER EDGE

ROBUST EDGEBANDING

Maximum bonding, possibility of applying thin edges and 3D transparent edges, easy maintenance and panel cleaning during the machining cycle.

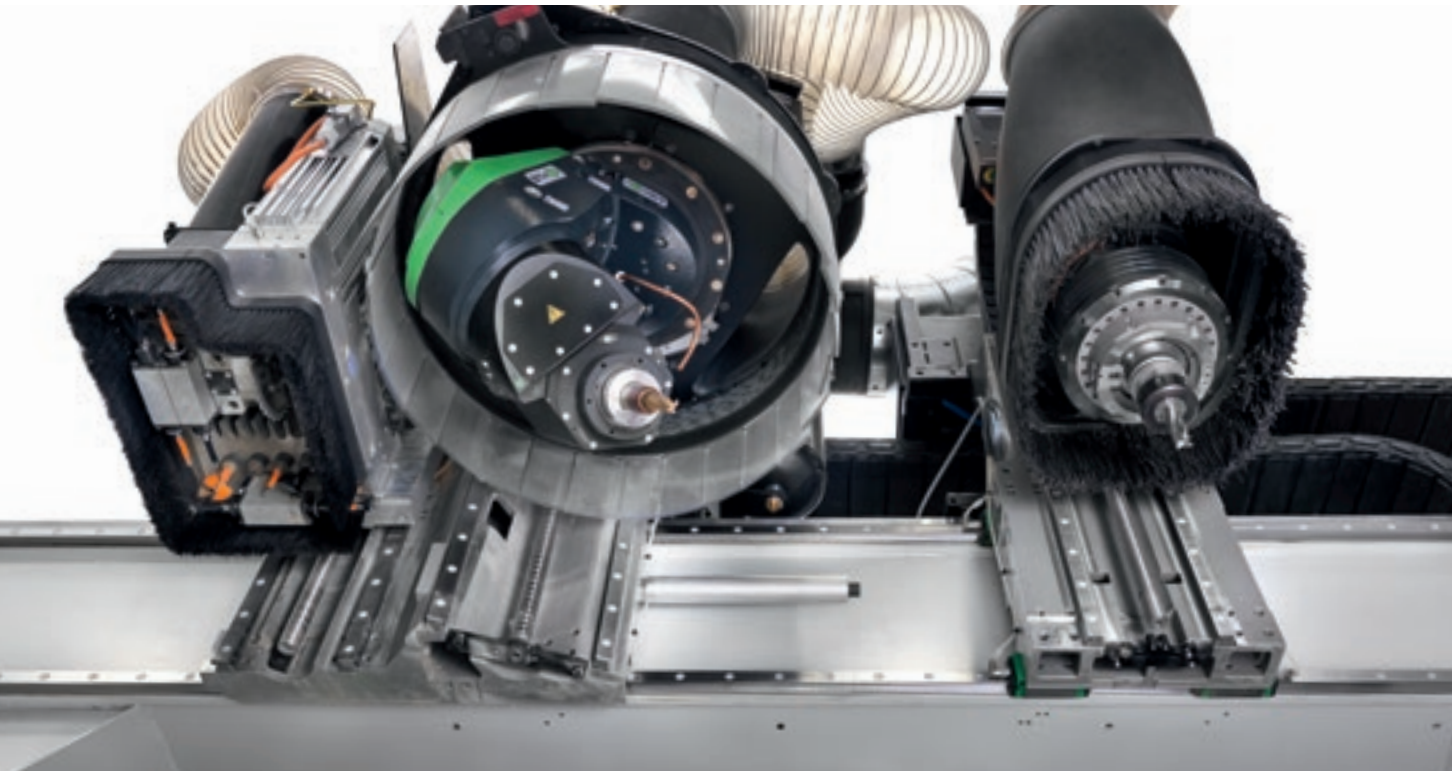
Edgebanding has always been based on applying glue directly to the panel; Biesse has followed this principle and applied it to straight edgebanding as well as shaped edgebanding performed by machining centres.

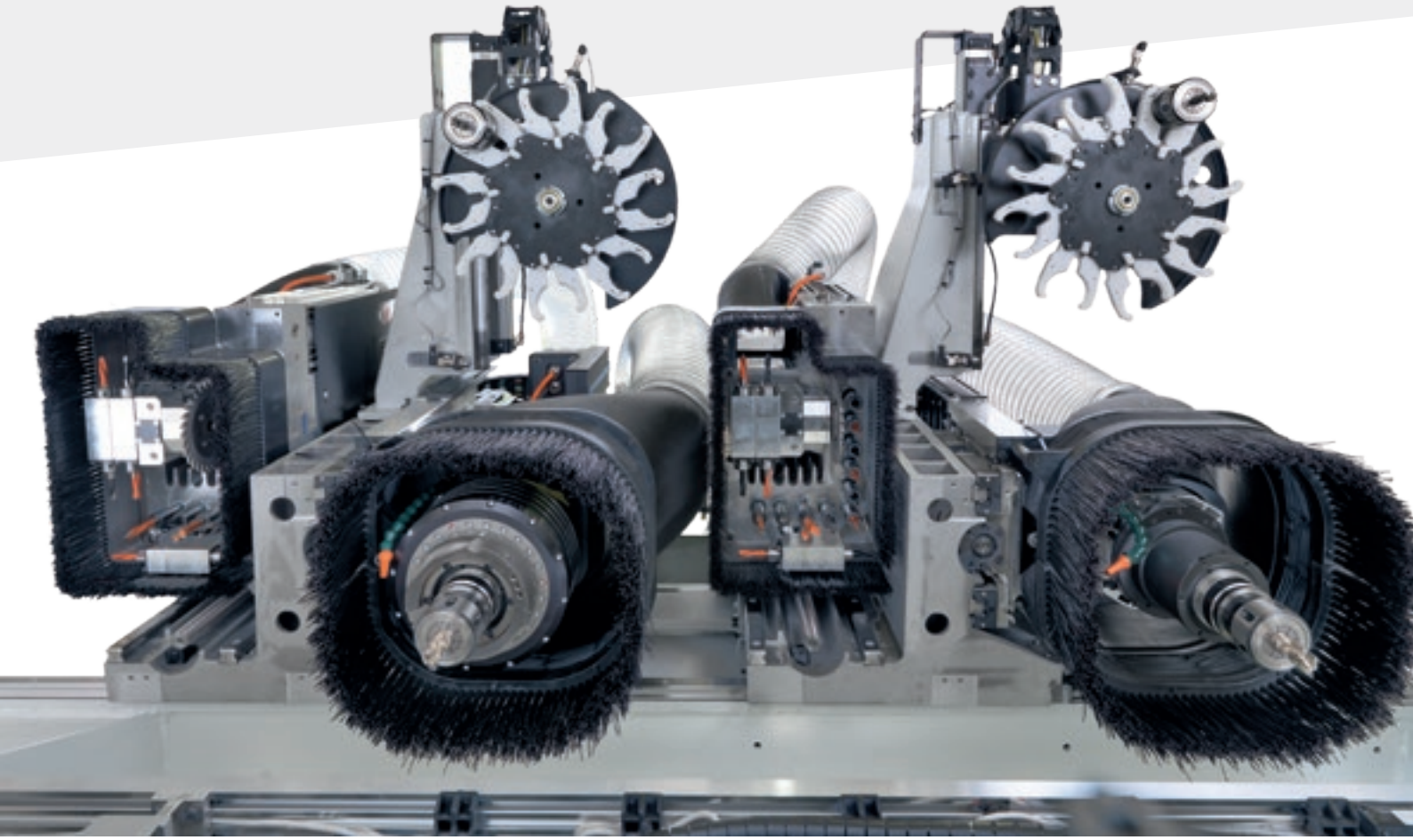
CUSTOMISABLE ACCORDING TO REQUIREMENTS

The Rover B Edge can be configured to meet a wide variety of market requests and create specific solutions for the needs of each individual customer.

The compact size of the fifth axis combined with the high drilling capacity allows users to perform operations in all production ranges, for processing simple and more complex structures.

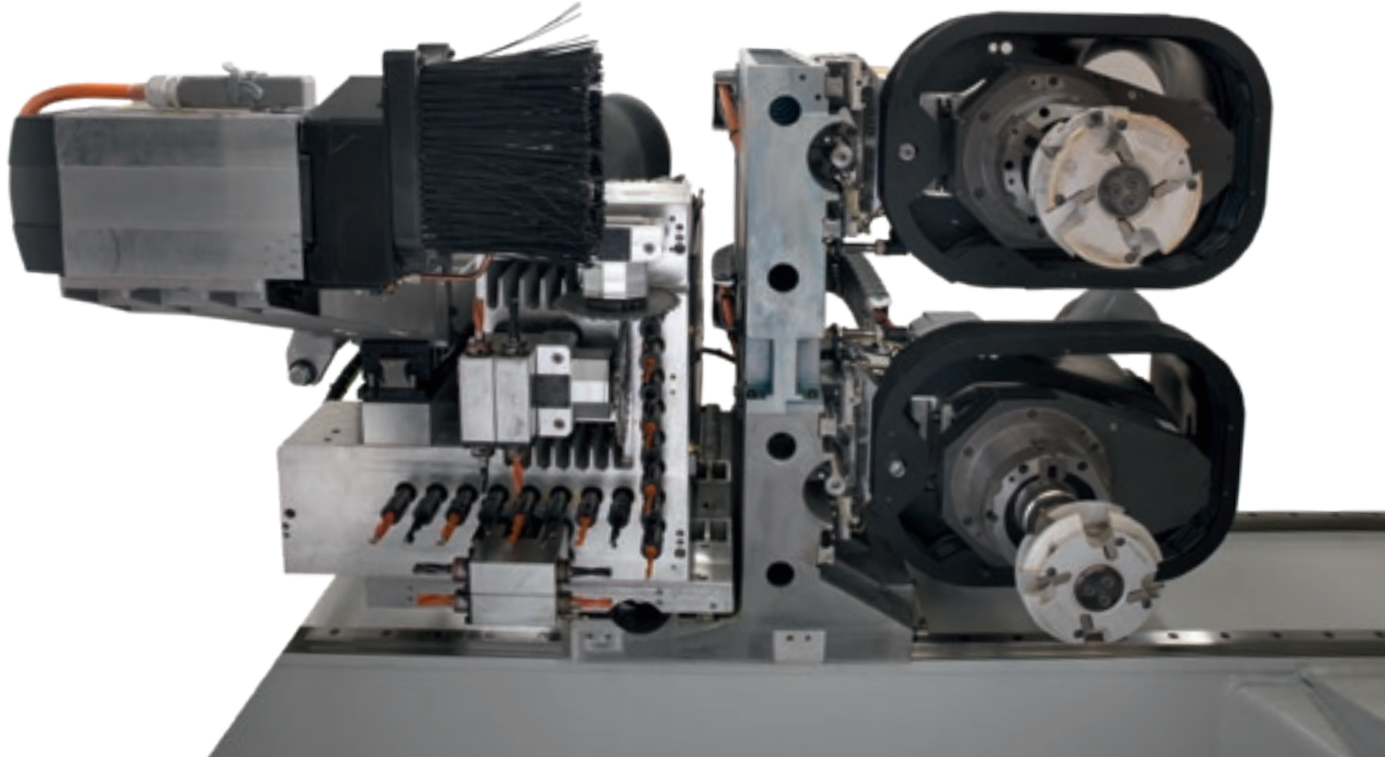
The possibility to configure the machine with two independent Y carriages - one with a 5-axis milling unit and a borer, and the other with a 4-axis milling unit - maximises production while still ensuring optimum flexibility.





Configuration for optimum productivity. Simultaneous machining of two pieces in milling and boring. Tool change while the machine is running.

The combination of 4 axis electrospindles allows for flexible production whilst maintaining high rates of productivity.



PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

Safety and flexibility thanks to the new bumpers combined with photocells with no footprint and dynamic tandem loading.

Side curtain guards to protect the working unit, which are movable to enable the machine to work at maximum speed in total safety.

Remote control panel for direct and immediate operator control.

Pressure-sensitive floor mats enable the machine to operate at constant maximum speed.

TECHNOLOGY AT THE SERVICE OF THE USER

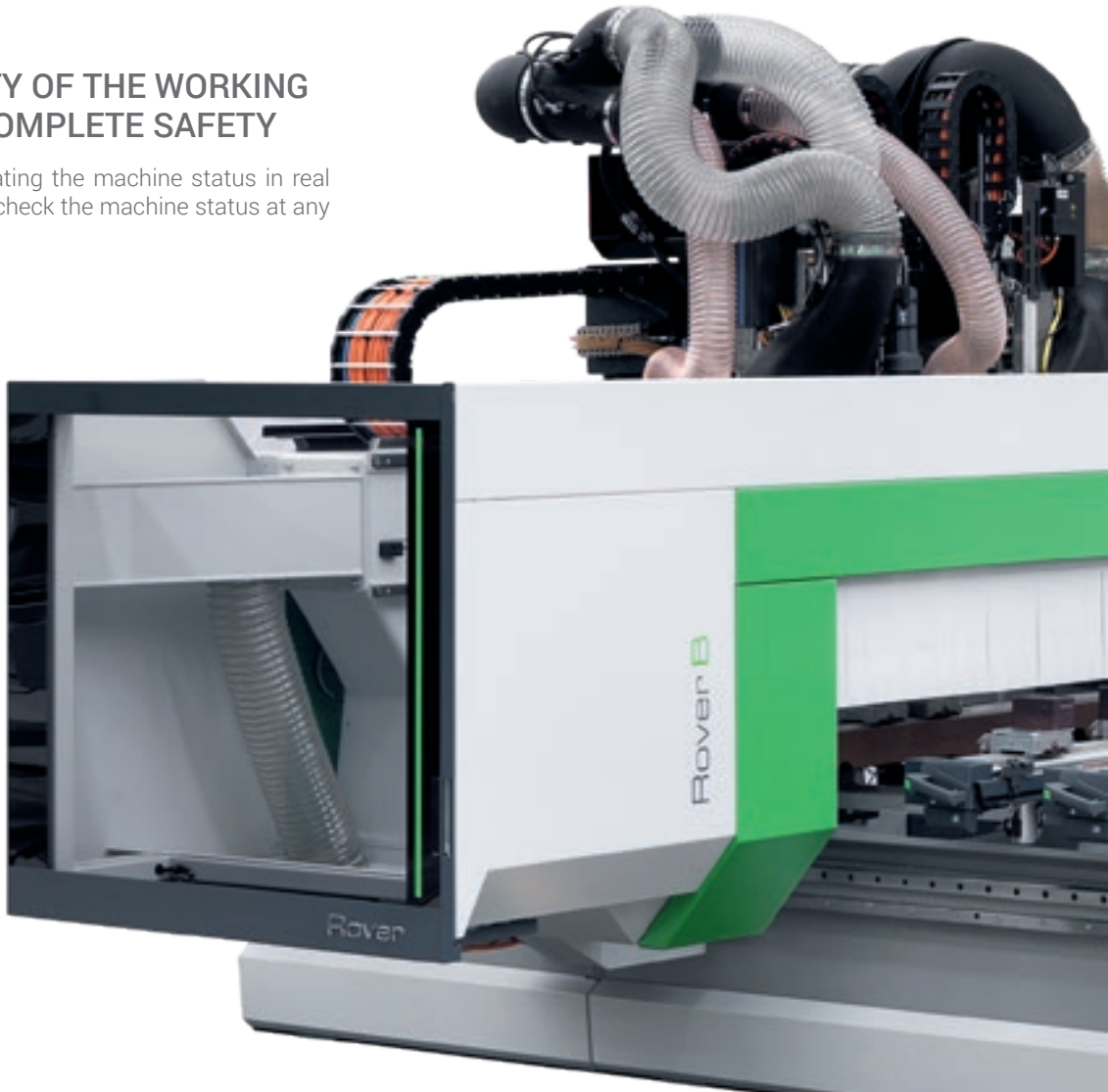
Mobile console for easy access to all the functions and machine programming.
bTouch is an optional feature that can be purchased after purchase of the machine to enhance the functionality and the usage of the technology available.

BTOUCH

The new 21.5" touch screen which enables you to carry out all of the functions previously performed using the mouse and the keyboard, enhancing the direct interaction between the user and the device. Perfectly integrated with the B_SUITE 3.0 interface (and with later versions) and optimised for touch, this solution is incredibly simple, and makes the best possible use of the Biesse software functions installed on the machine.

MAXIMUM VISIBILITY OF THE WORKING UNIT TO WORK IN COMPLETE SAFETY

LED bar with 5 colours, indicating the machine status in real time, allowing the operator to check the machine status at any point.



LOADING AND UNLOADING SOLUTIONS

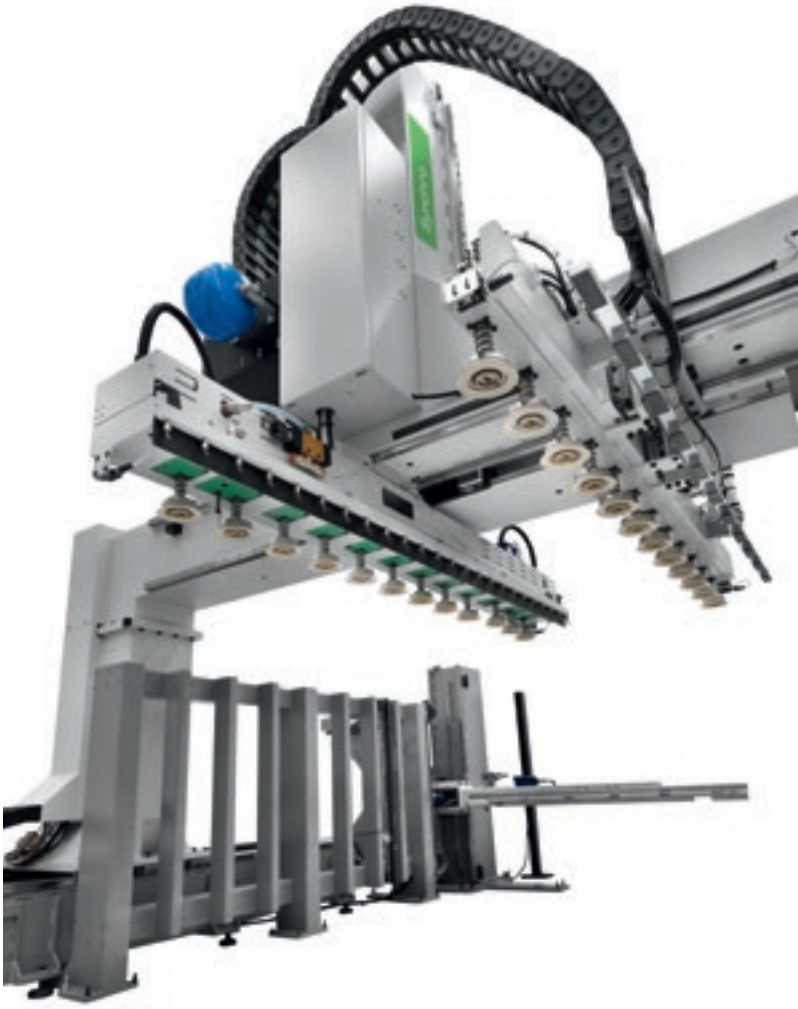
Synchro is a loading/unloading device that transforms the Rover machining centre into an automatic cell for producing a stack of panels autonomously (without the need for an operator):

- It eliminates the risk of damage in the case of heavy panels that need to be handled by 2 operators
- It's easy to use, because the machining centre program also contains the Synchro command instructions
- It has limited overall dimensions, and can be positioned to the left or right of the machining centre
- It comes with various configurations, depending on the size of the panels to be handled and the layout of the stacks

Mechanical detacher
Increases the reliability and repeatability of the automatic functioning cycle of the cell, compensating for the lack of alignment of the panels in the stack. It consists of a central or lateral mobile stop equipped with blowers to allow for the separation of the panels in the stack.

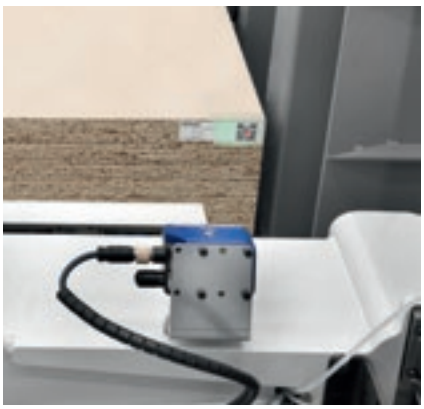
Automated cell for machining a batch of panels or doors.

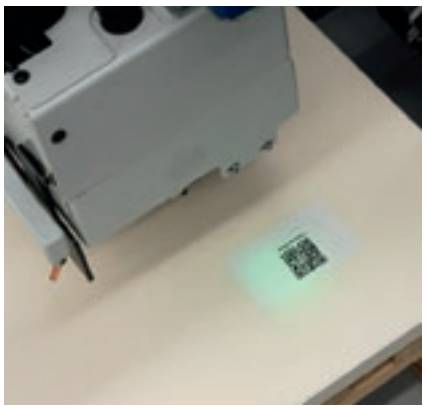
Synchro can also machine stacks of different-sized panels, thanks to stack reference device and the panel pre-alignment cycle, which is performed while the machine is running, while the Rover machining centre processes the previous panel.



Panel pick-up device with automatic positioning of the suction cup holder rods
In accordance with the size of the panel to be picked up:

- No operator intervention is required to attach or remove the suction cup holder rods
- Idle time during format change operations is dramatically reduced
- The risk of collisions caused by incorrect tooling operations is reduced.
- Available in multi-zone mode with independent activation of the suction cups
- The suction cups can be configured with internal blowing to manage porous materials





Two types of **bar code readers** are available for reading the bar codes on the top face and on the side face of the panel. These can be used to load the proper machining programme list avoiding operator error.

Dedicated configuration for the simultaneous loading/unloading of 2 panels, to maximise machining centre productivity:

- 0 operators
- 1 machining program
- 2 panels

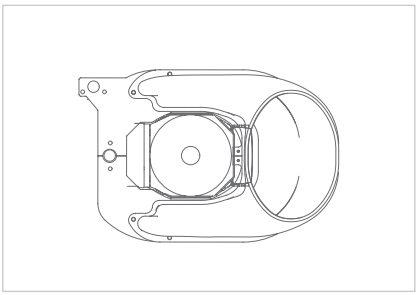
OPTIMAL CLEANING OF MACHINED COMPONENTS AND WORK AREA

Motorised conveyor belt for the removal of chips and waste.
Worktops with hidden connections to provide excellent chip evacuation capacity.

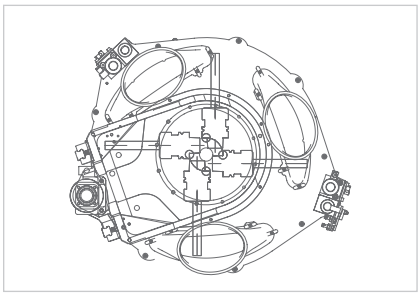
NC-controlled deflector
(chip conveyor).

Adjustable suction hood with 10 settings (for 3/4 axes) and 19 setting (for 5 axls) and continuous positioning for all milling units.

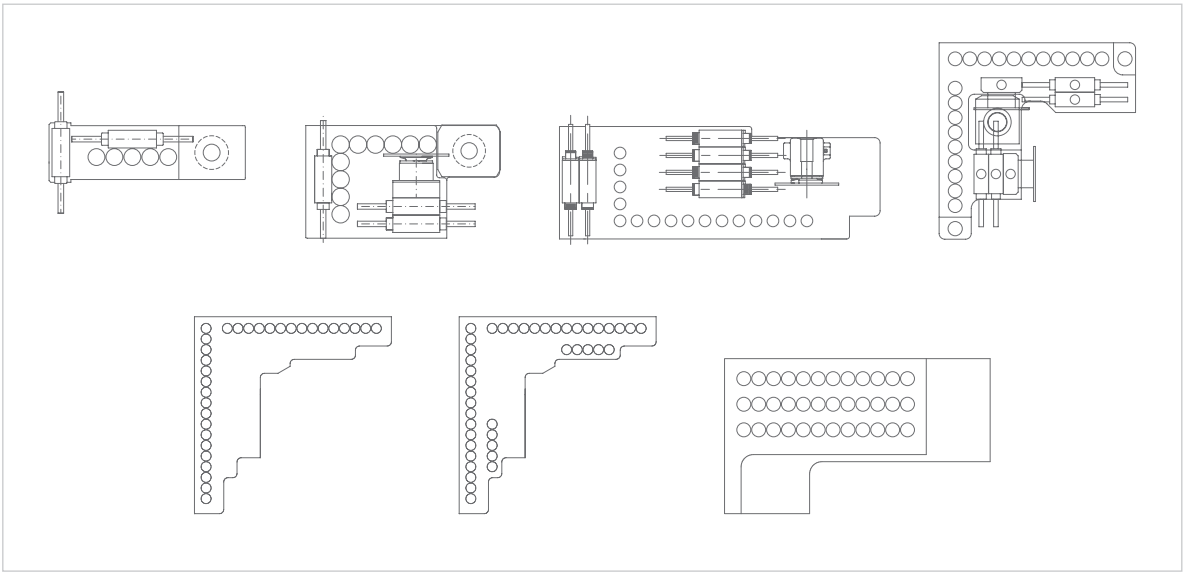
WORKING UNIT CONFIGURATION



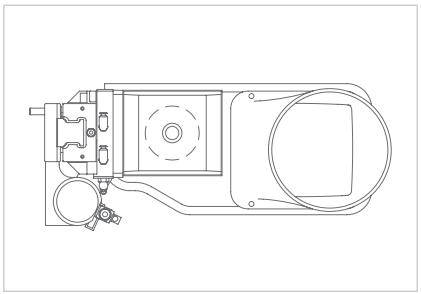
Milling unit with air or liquid cooling, ISO 30, HSK F63 and HSK E63 couplings and power from 13.2 to 19.2 kW.



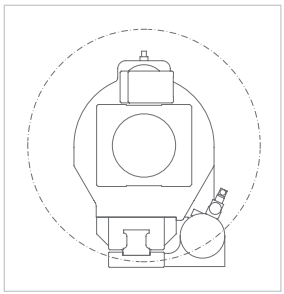
5 axes 13 kW with 24000 rpm or 16.5 kW with 18000 rpm.



Boring head available from 9 to 42 tools: vertical and horizontal boring solutions: BHZ 9 - BHZ 17 L - BHZ 29 L - BHZ 30 2L - BHC 32 - BHC 42 - BHC 36 or dedicated vertical BHC 42 with units for horizontal rotary TCH9 L or fixed TCH14 2L.



6 kW vertical milling unit.



Multi-function,
with 360° rotation.

myVA

SOLUTIONS THAT MAKE THE USE
OF OUR MACHINES SIMPLER,
MORE ERGONOMIC AND MORE EFFICIENT

SINGLE CONTROL STATION WITH TWIN MONITORS AND LABELLING MACHINE

The machine can be controlled and labels printed (for piece identification) from a single command point. Solution that greatly enhances the machine ergonomics.

PRINTER ON THE MOBILE CONSOLE

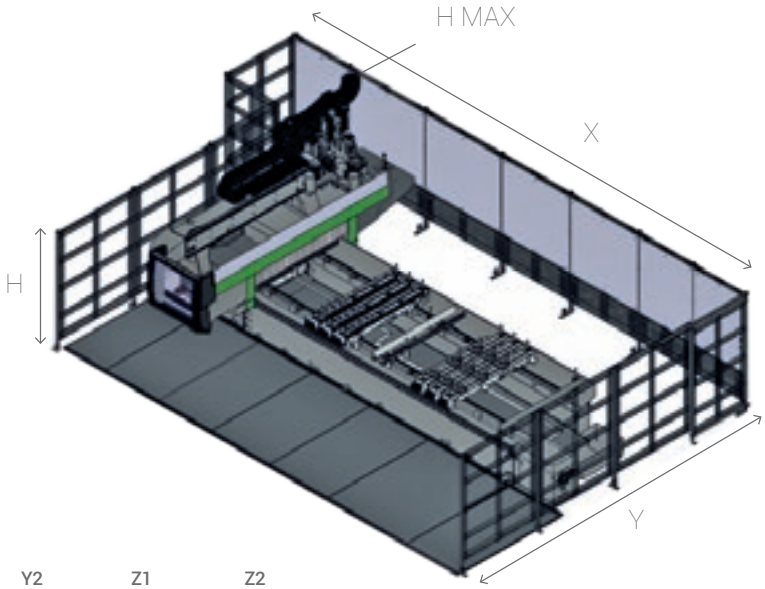
The printer is connected directly to the machine PC, and positioned so that everything needed for labelling is close to hand.

Biesse has developed a series of solutions that help the operator in the various work phases, making daily tasks easier. myVA is a virtual assistant for every operator.

WEARABLE BAR CODE AND QR SCANNER

Used to upload programs in the work list, reading the information given on the label and activating the subsequent machining phases.
QR codes or bar codes are read quickly and accurately, leaving the operator's hands free (unlike the classic scanner).

TECHNICAL SPECIFICATIONS



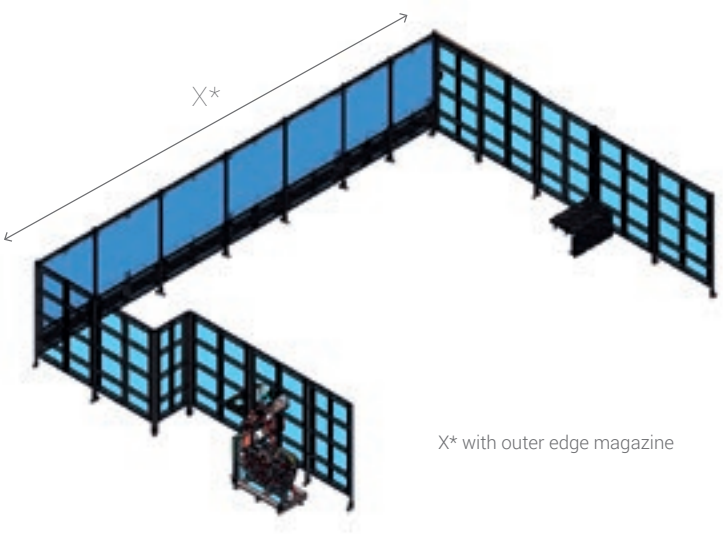
WORKING TABLE

		X1 milling	Y1 milling	X2 edgebanding	Y2 edgebanding	Z1 milling modules H74	Z2 milling modules H29
Rover B Edge 1638	mm	3855	1600	2900	1600	245	290
	inch	151,8	63,0	114,2	63,0	9,6	11,4
Rover B Edge 1650	mm	5055	1600	4100	1600	245	290
	inch	199,0	63,0	161,4	63,0	9,6	11,4
Rover B Edge 1667	mm	6735	1600	5780	1600	245	290
	inch	265,2	63,0	227,6	63,0	9,6	11,4
Rover B Edge 1684	mm	8415	1600	7460	1600	245	290
	inch	331,3	63,0	293,7	63,0	9,6	11,4
Rover B Edge 1950	mm	5055	1900	4100	1900	245	290
	inch	199,0	74,8	161,4	74,8	9,6	11,4
Rover B Edge 1967	mm	6735	1900	5780	1900	245	290
	inch	265,2	74,8	227,6	74,8	9,6	11,4
Rover B Edge 1984	mm	8415	1900	7460	1900	245	290
	inch	331,3	74,8	293,7	74,8	9,6	11,4
Rover B Edge 2250	mm	5055	2200	4100	22000	245	290
	inch	199,0	86,6	161,4	86,6	9,6	11,4
Rover B Edge 2267	mm	6735	2200	5780	2200	245	290
	inch	265,2	86,6	227,6	86,6	9,6	11,4
Rover B Edge 2284	mm	8415	2200	7460	2200	245	290
	inch	331,3	86,6	293,7	86,6	9,6	11,4

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 in:
Operator workstation LpfA 82 dB (A).
Loading unloading position LpfA 79 dB (A).
Uncertainty factor K = 4 dB (A).
The measurement was carried out in compliance with UNI EN ISO 3746, UNI EN ISO 11202:2010 and subsequent modifications.

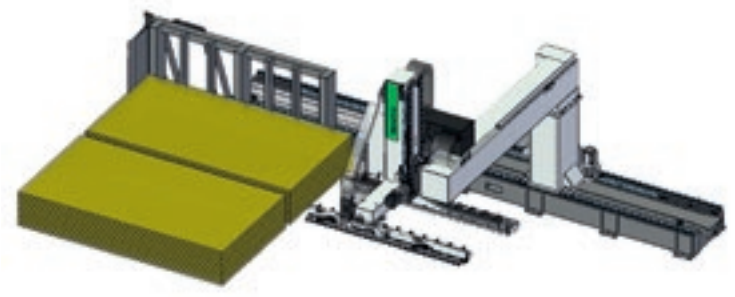
The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Despite the fact that there is a relationship between emission and exposure levels, this may not be used in a reliable manner to establish whether further measures need to be taken. The factors determining the exposure level for the workforce include length of exposure, work environment characteristics, other sources of dust and noise, etc. i.e. the number of other adjoining machines and processes. At any rate, the above information will enable the operator to better evaluate dangers and risks.



X* with outer edge magazine

FOOT PRINT

	X	X*	Y	H	H MAX
	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch
Rover B Edge 1638	8440/332	8680/342	5990/236	2000/79	2650/104
Rover B Edge 1650	9620/379	9860/388	5990/236	2000/79	2650/104
Rover B Edge 1667	11280/444	11520/453	5990/236	2000/79	2650/104
Rover B Edge 1684	12980/511	13220/520	5990/236	2000/79	2650/104
Rover B Edge 1950	9620/379	9860/388	6340/250	2000/79	2650/104
Rover B Edge 1967	11520/435	11280/444	6340/250	2000/79	2650/104
Rover B Edge 1984	12980/511	13220/520	6340/250	2000/79	2650/104
Rover B Edge 2250	9620/379	9860/388	6680/263	2000/79	2650/104
Rover B Edge 2267	11520/435	11280/444	6680/263	2000/79	2650/104
Rover B Edge 2284	12980/511	13220/520	6680/263	2000/79	2650/104



WORKING TABLE SYNCHRO

Length (min / max)	mm/inch	400/3200* - 16/ 126*
Width (min / max)	mm/inch	200/2200* - 8/87*
Thickness (min / max)	mm/inch	8/150 - 0,3/6
Weight (1 panel/ 2 panels)	kg/lb	150/75 - 331/165
Useful height of stack	mm/inch	1000 - 39
Height of stack from ground (including 145 mm Europallet)	mm/inch	1145 - 45

(*) the Min and Max values may vary in accordance with the configurations of Synchro and the Rover machining centre to which Synchro is linked.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

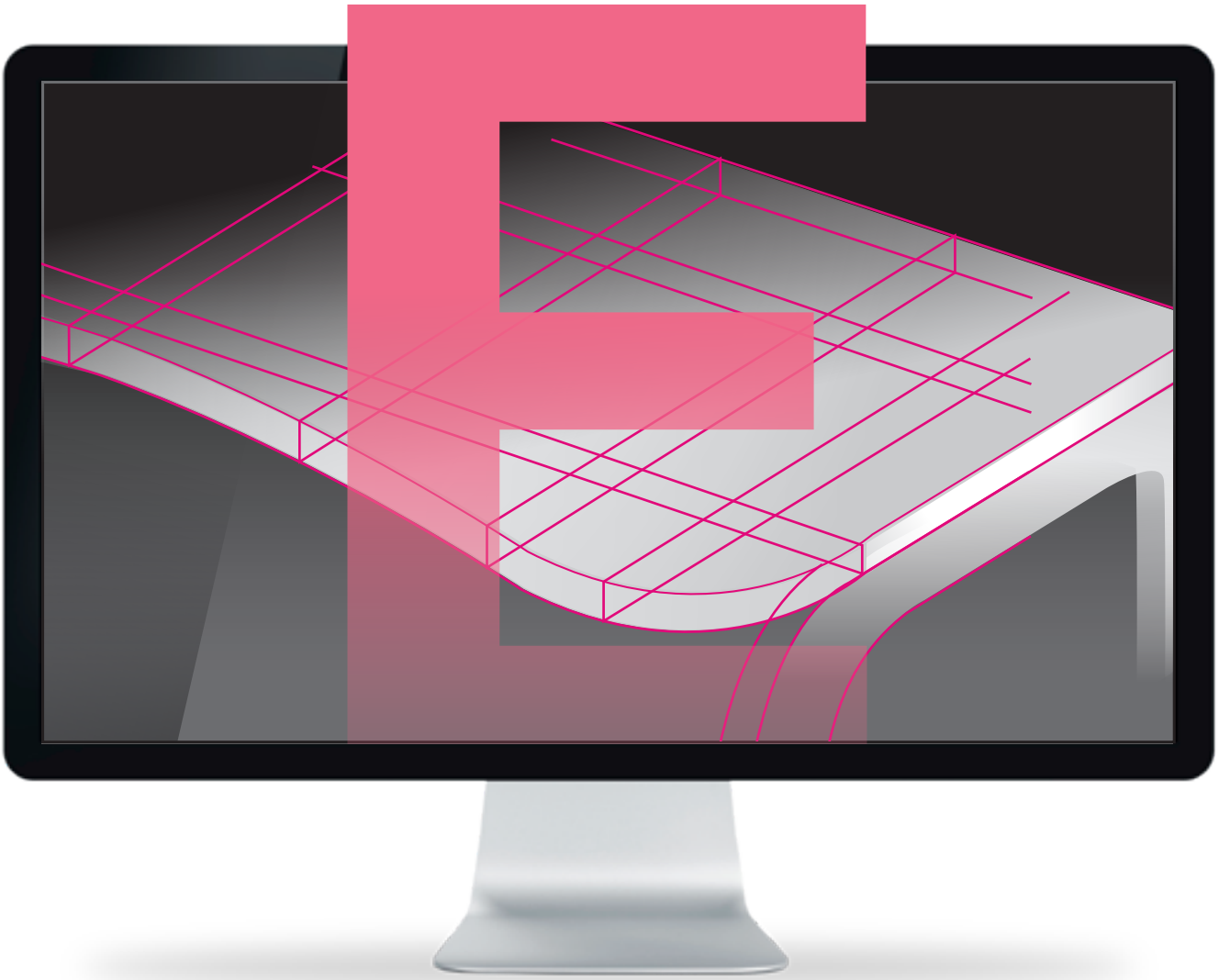
- Planning in just a few clicks.
- Simulating machining operations to visualise the piece ahead of manufacturing and have some guidance for the planning phase.
- Virtual prototyping of the piece to avoid collisions and ensure optimal machine equipment.
- Machining operation simulation with a calculation of the execution time.

SIMPLIFYING EDGEBANDING PROGRAMMING

B_E

B_EDGE IS AN ADDITIONAL MODULE INTEGRATED IN B_SUITE. MAKING FULL USE OF THE CAPACITIES OF THE SUITE, B_EDGE SIMPLIFIES THE PROGRAMMING OF THE EDGEBANDING PROCESS.

- Automatic generation of the edgebanding operation sequence.
- Easy to understand and operate.
- Simplified management of edgebanding strips and edgebanding devices



MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER

SMART
CONNECTION
Powered by Retuner

SC

SMARTCONNECTION IS A SOFTWARE PACKAGE FOR MANAGING JOB ORDERS WITHIN THE COMPANY - FROM THE GENERATION PHASE TO SCHEDULING AND ACTUAL PRODUCTION START-UP - IN JUST A FEW SIMPLE, INTUITIVE STEPS.

THANKS TO SMARTCONNECTION, THE PRODUCTION SITE MACHINES CAN BE LINKED UP TO TRANSFORM THE COMPANY INTO A 4.0 ENTITY..

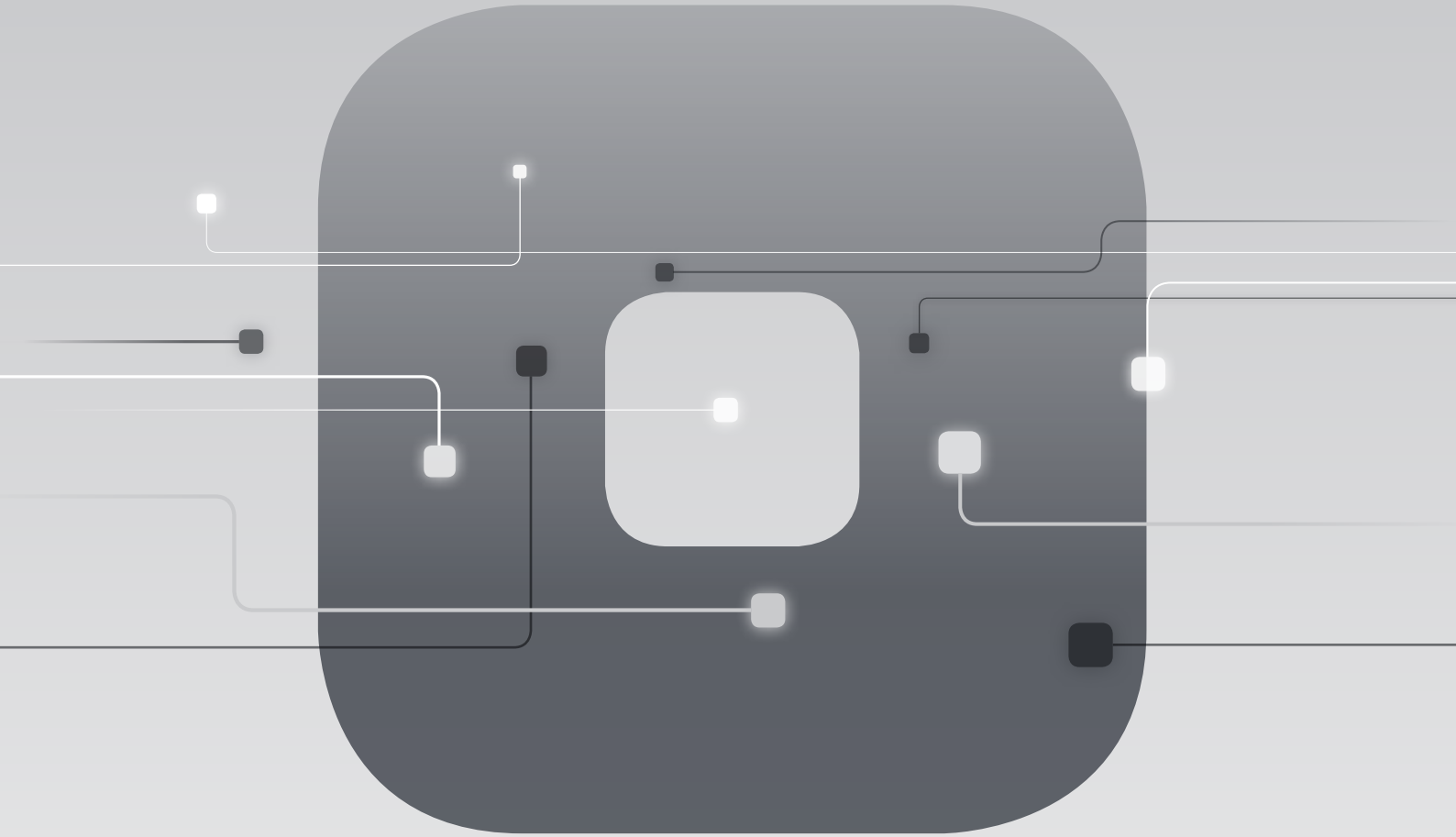
SmartConnection is a web-based solution that can be used by any device.

MANAGE THE JOB ORDER → PLAN → SCHEDULE → WORK

Biesse is extending SmartConnection across all geographical areas.
To check availability in your country, get in touch with your commercial contact.

SOPHIA

GREATER VALUE FROM MACHINES



The Biesse IoT platform which enables customers to access an extensive range of services to streamline and rationalise their work management processes.

- SERVICES
- PROACTIVITY
- ANALYSIS

Biesse

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

MADE WITH BIESSE

BIESSE GROUP TECHNOLOGY SUPPORTS THE MANUFACTURING EFFICIENCY OF THE WORLD'S LARGEST FURNITURE MANUFACTURERS

"We were looking for a solution that would be so innovative that it would satisfy all our needs at the same time," states the manufacturing manager of one of the world's largest furniture manufacturers.
"Most of our production was already made using numerical control tools, but now everything that we produce is made with these technologies.

This is why it was necessary to increase our production capacity. Biesse offered a solution that we liked very much, a veritable range of processing centres and automatic magazines. Innovative, fascinating and decidedly powerful.
With Biesse we defined a "turnkey" solution to be planned, built, tested, installed, inspected and commissioned within a precisely defined schedule".

Source: excerpt from an interview to the manufacturing manager of one of the world's largest furniture manufacturers.

BIESSE.COM

Founded in Italy, international native.

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.

We simplify your manufacturing process to make the potential of any material shine.

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