

# PRO VER A EDGE 15/18

CNC EDGEBANDING  
MACHINING CENTRE



# TECHNOLOGY PRODUCES TOP RESULTS IN THE EDGEBANDING OF SHAPED ARTICLES



## THE MARKET EXPECTS

a change in manufacturing processes which enables 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

with **technological solutions** that influence and support technical expertise as well as process and material knowledge. **Rover A Edge15/18** is the new edgeworking CNC centre with a gantry structure, designed to produce shaped, edge-banded panels on a single machine. The ideal solution for artisans and small/medium-sized businesses requiring excellent machining quality and ease of use with long-term reliability.



## **ROVER** A EDGE 15/18

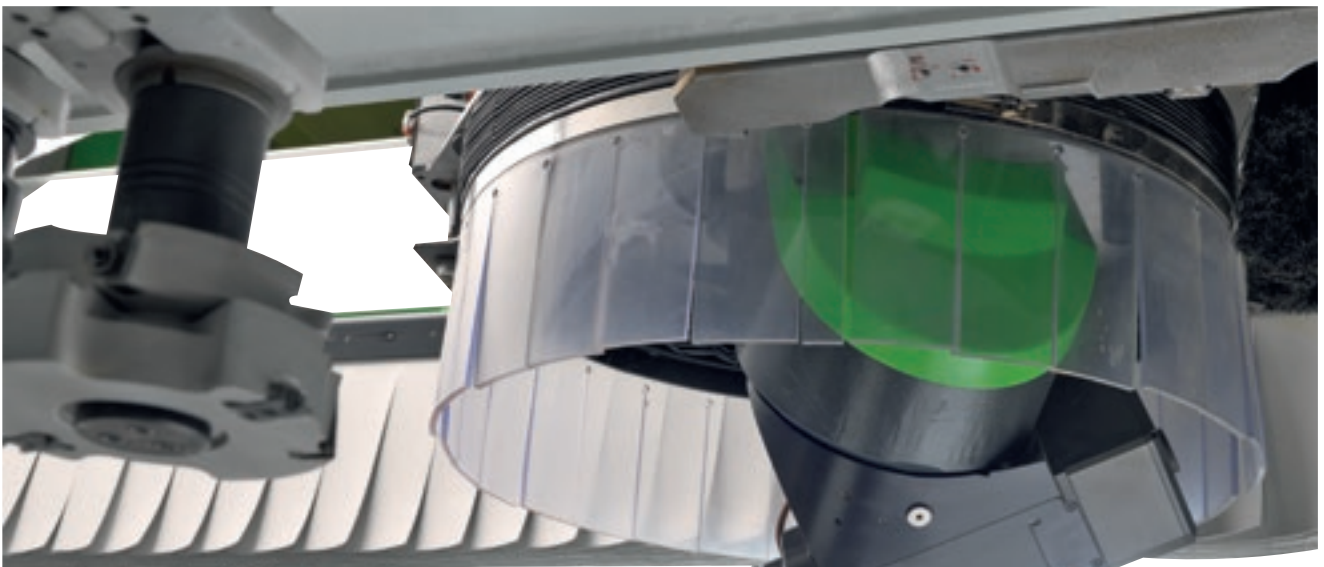
- ✓ RELIABILITY AND ROBUSTNESS, THANKS TO THE GANTRY STRUCTURE
- ✓ REDUCED TOOLING TIMES
- ✓ OPTIMUM EDGE BANDING STRIP ADHESION
- ✓ EXCELLENT FINISHED PRODUCT QUALITY
- ✓ SOLUTIONS THAT INCREASE MACHINE PRODUCTIVITY
- ✓ ERGONOMIC AND COMPACT

# OPTIMUM PERSONALISATION

Rover A Edge 15/18 allows various types of machining operation to be carried out on a single machine, guaranteeing quality, precision and full reliability over time.



## 4-AXIS CONFIGURATION



## 5-AXIS CONFIGURATION

The **cutting-edge 5-axis** working group supports the machining of pieces with complex shapes, ensuring quality and precision.

# ZERO JOINT TECHNOLOGY



## SHAPED EDGEBANDING



## BORING

A full configuration of the operating section supports different machining operations whilst ensuring high product quality.

# HIGH PRECISION AND RELIABILITY OVER TIME



The Rover A Edge 15/18 with gantry structure is designed to withstand high levels of machining strain, guaranteeing the quality of the end product.



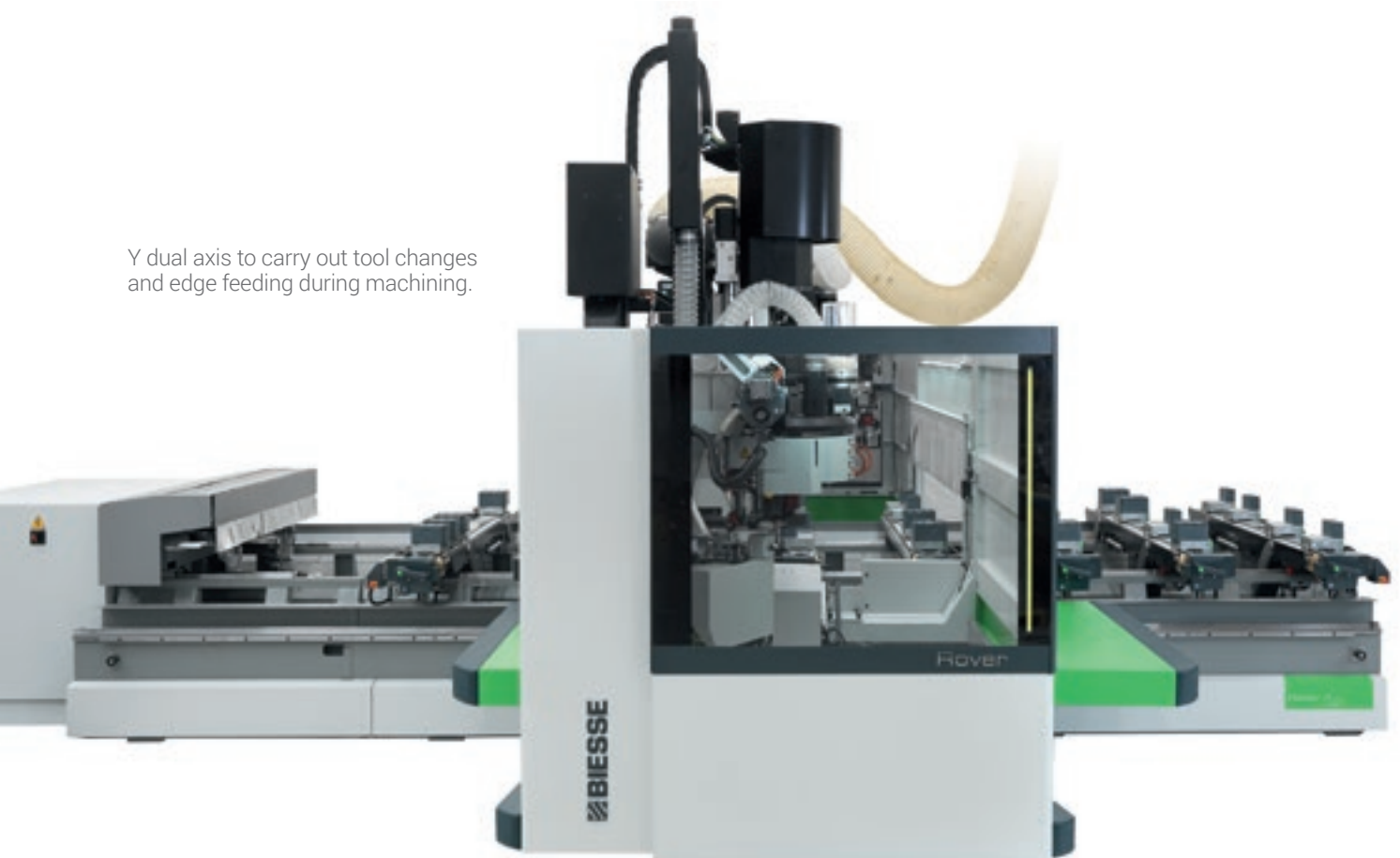
AESTHETICALLY EXCELLENT QUALITY OF FINISH THAT LASTS OVER TIME.

# ERGONOMIC AND COMPACT



An extremely compact machining centre designed to adapt to the production space in which it is installed. Enables the operator to safely access all sides of the machine at all times, with no obstacles on the ground.

Y dual axis to carry out tool changes and edge feeding during machining.

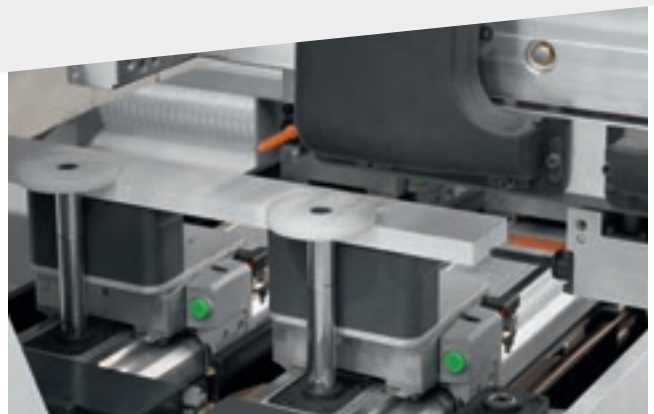


THE CARRIAGE OF THE EDGEBANDING UNIT,  
POSITIONED ON THE SAME SIDE AS THE WORKING  
UNITS, ENSURES THE MAXIMUM EXPLOITATION  
OF THE WORKING AREA AVAILABLE.

# 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



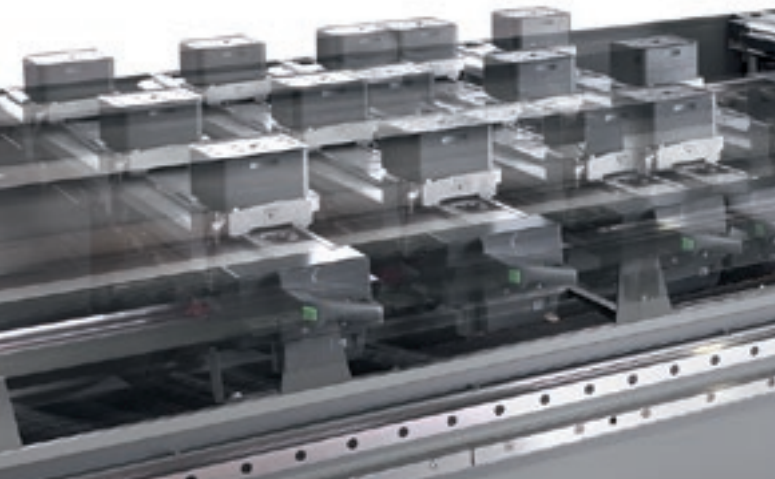
## **ATS (Advanced Table-Setting System)**

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

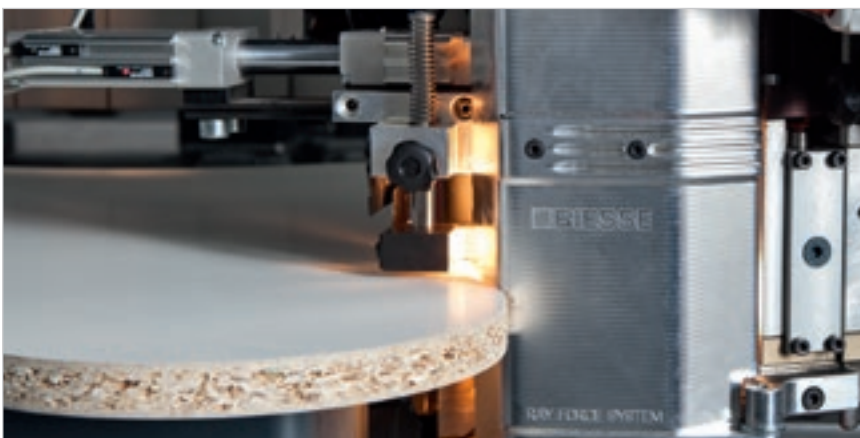


Optimal edge pressure quality during gluing on shaped panels thanks to the twinroller edge pressure system.



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.

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.

# FIRM, STABLE ADHESION



## PU GRANULE ADHESIVES

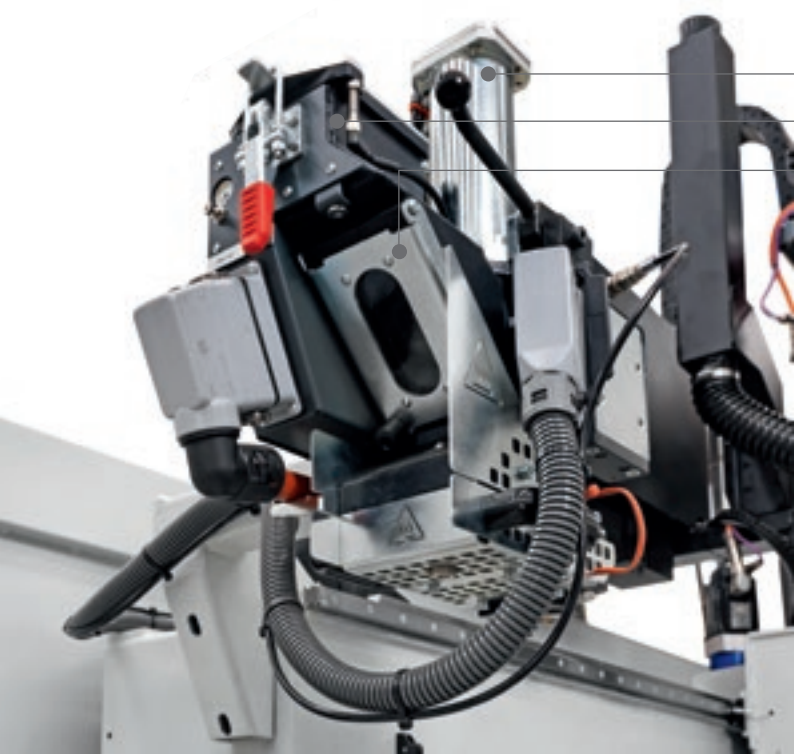
Specific solutions for the use of polyurethane glues resistant to heat, humidity and water.

**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.



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

## EVA, PUR OR APAO GLUE EITHER IN GRANULES OR IN SMALL CARTRIDGES



- CARTRIDGE TUNK
- GRANULE LOADING
- GRANULE UNLOADING



### TM15 Hybrid Top Melt pre-melter

New hybrid system for melting on-demand glue from above:

- Hybrid pre-melter for working PUR, EVA or APAO glue, to meet every possible need
- High flexibility thanks to the possibility to use glue either in granules or in small cartridges
- Quick and easy maintenance procedures that require no special skills of the operator

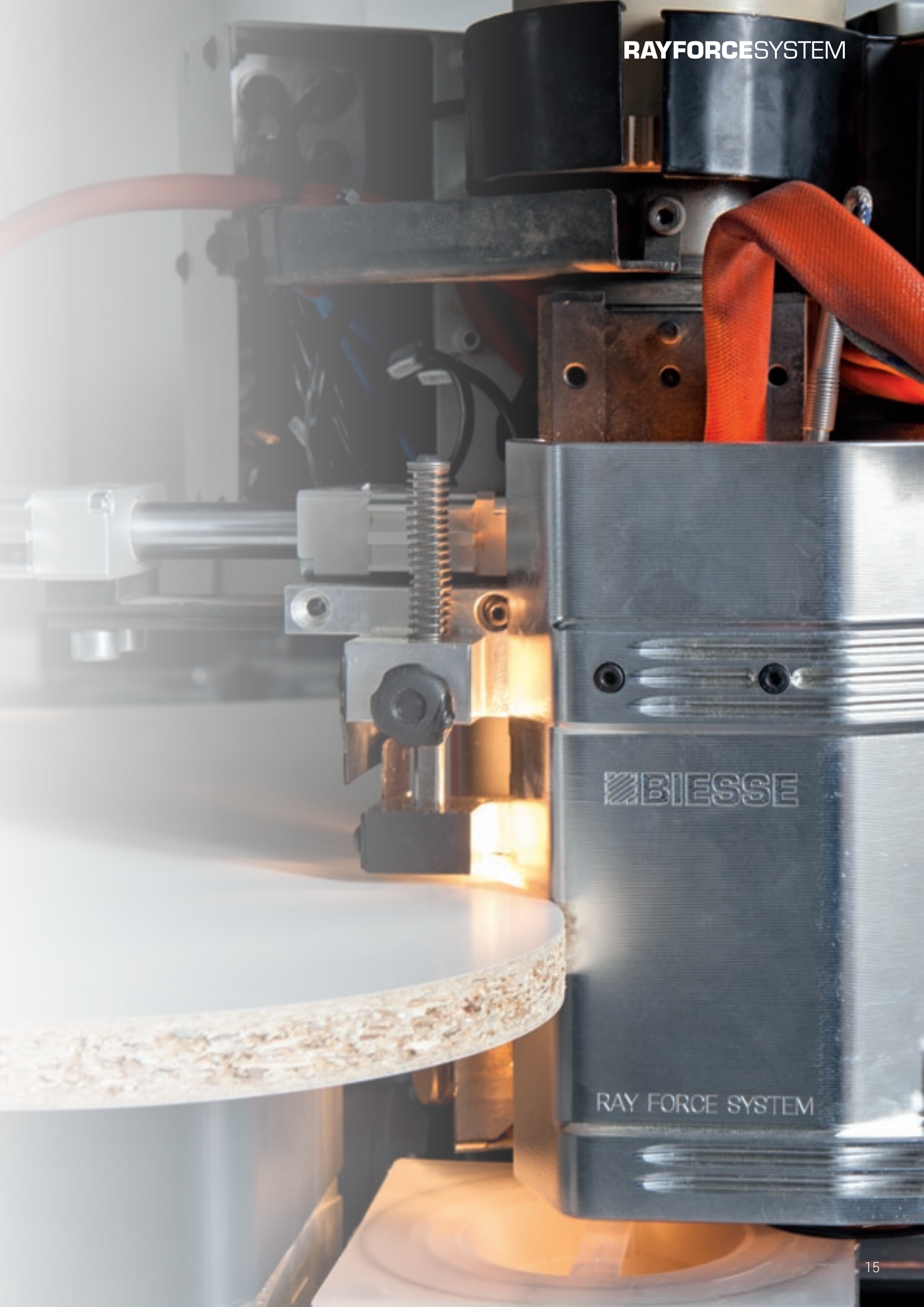
# RAY FORCE SYSTEM

## 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

Easy access to the banding material container and machine magazines for tooling.



TM15

REVOLVER  
MAGAZINE

RACK TOOL  
MAGAZINE

FRONT  
MAGAZINE

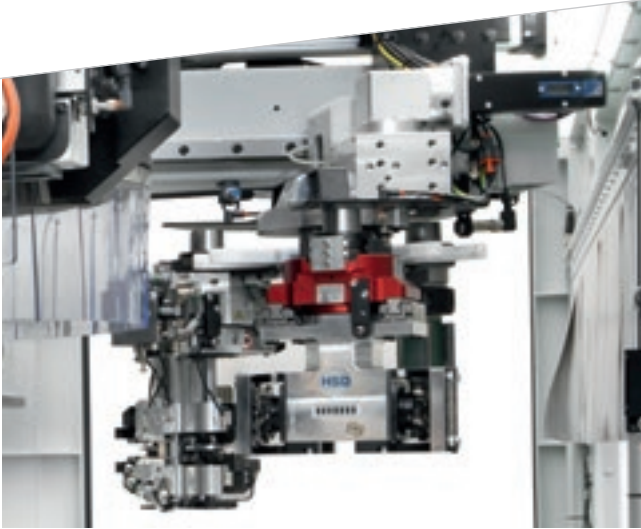
## PROMPT, QUICK COIL CHANGE

**Front banding material container** with: 1 coil, 2 coils, and/or manual feed with machining suspension.

The magazine for automatic edgebanding strip feed has 2 positions and is mounted on the front of the X carriage, allowing both thin and thick strips to be used during a single working cycle.



# UP TO 30 PLACES, ENSURING THAT THE NECESSARY TOOLS ARE ALWAYS CLOSE AT HAND



**6-position revolver** always available on the Y carriage.



Rack tool magazine with 12 or 23 places, with integrated pick-up.



Single-place front magazine on the X carriage, for aggregates and blades with diameter up to 290 mm.

# 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



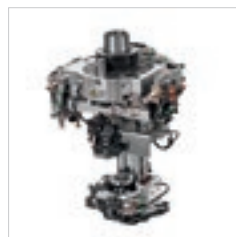
Trimming aggregate, glue scraper, 30 mm minimum internal radius.

ETS60C



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

EGS60C



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

EF60C









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



Bench to facilitate the adjustment of the edgelanding 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 edgelanding 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 edgbanding strip.



Blower unit.

## A COMPLETE RANGE OF AGGREGATES



Aggregate for milling of 90 internal corners.



# MAXIMUM ERGONOMICS AND SAFETY FOR THE OPERATOR

## BIESSE MACHINES ARE DESIGNED TO WORK IN COMPLETE SAFETY

Complete working unit protection: the front door has two openable panels, guaranteeing optimum visibility and easy access to the working units for tooling.



## VARIOUS SOLUTIONS AVAILABLE

- ▣ the new "full bumper" solution, the work table can be accessed from every side
- ▣ Bumper plus photocells solution, combining productivity with ergonomics



Overlapping lateral curtain guards protect the working unit.

## TECHNOLOGY AT THE SERVICE OF THE USER



Mobile console for easy access to all the functions and machine programming.

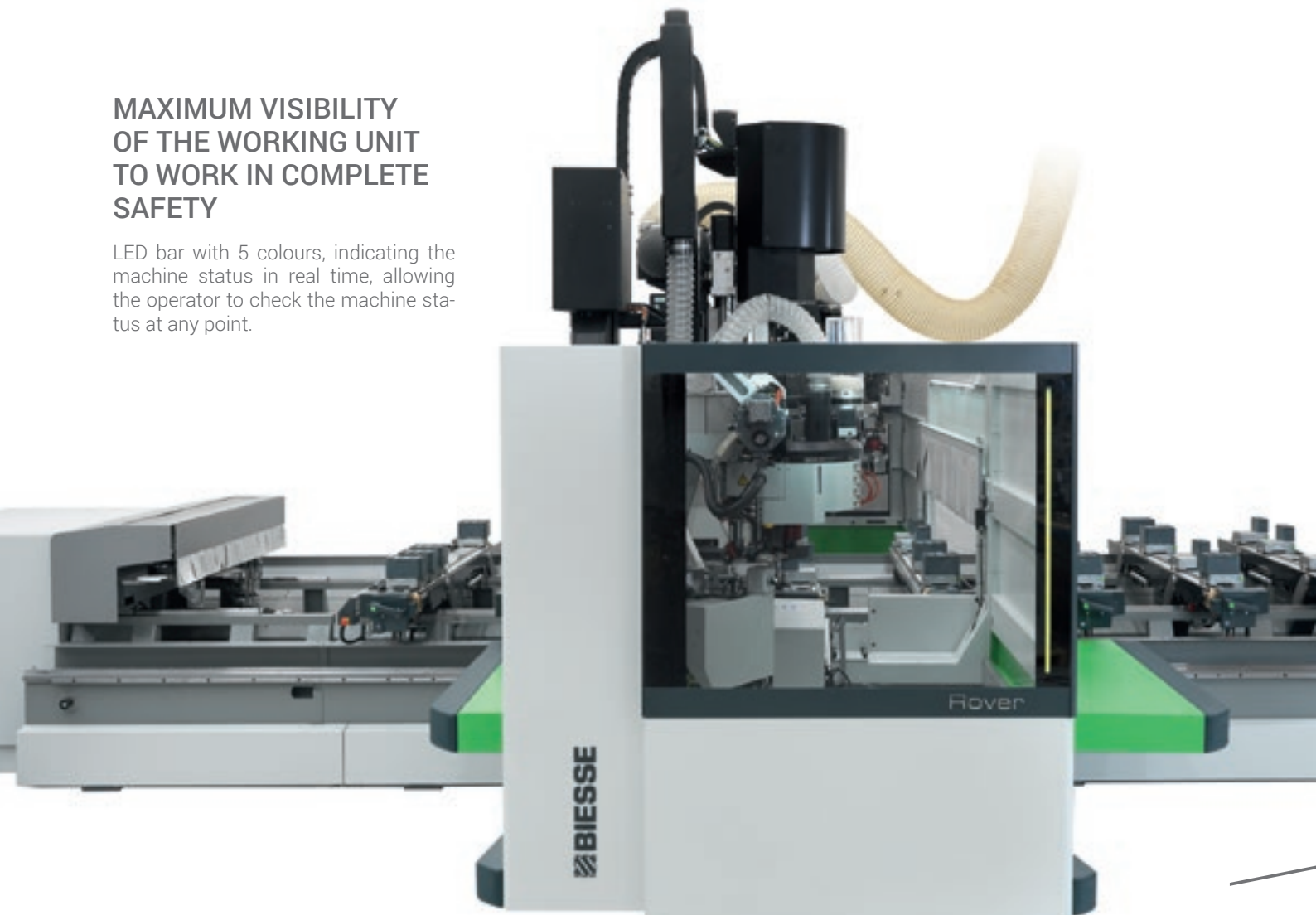
bTouch is an optional feature that can be purchased after purchase of the machine to enhance the functionality and the usage of the technology available.

### 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

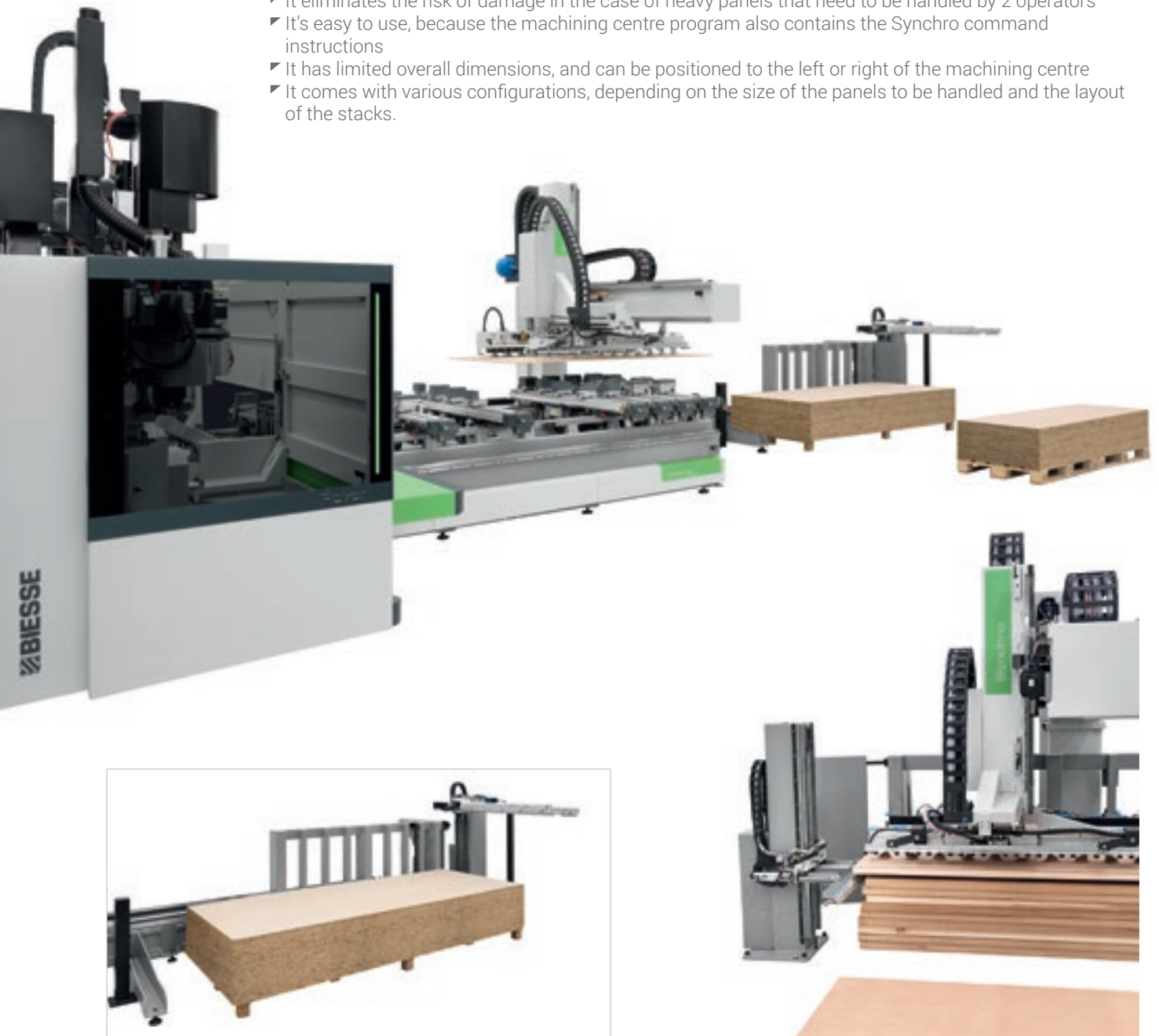
LED bar with 5 colours, indicating the machine status in real time, allowing the operator to check the machine status at any point.



# 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.

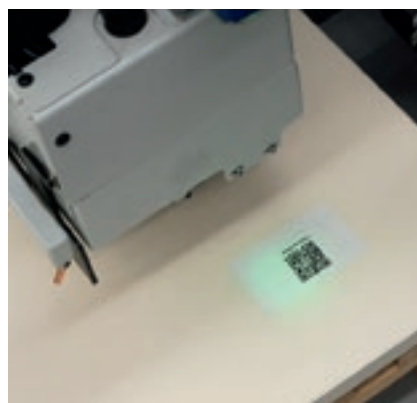
Automated cell for machining a batch of panels or doors.

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 PIECE AND WORK AREA



Motorised conveyor belt for the removal of chips and waste.



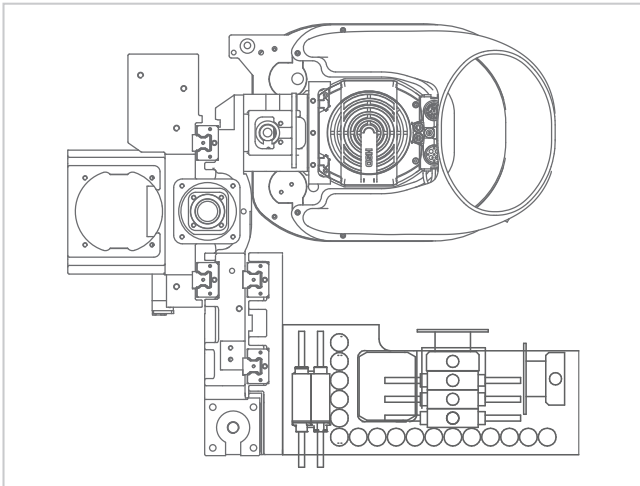
NC-controlled deflector (chip conveyor).



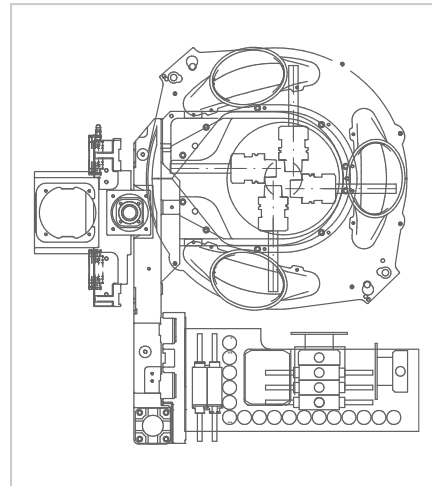
Adjustable suction hood with 8 settings (for 4 axes) and 12 setting (for 5 axes).



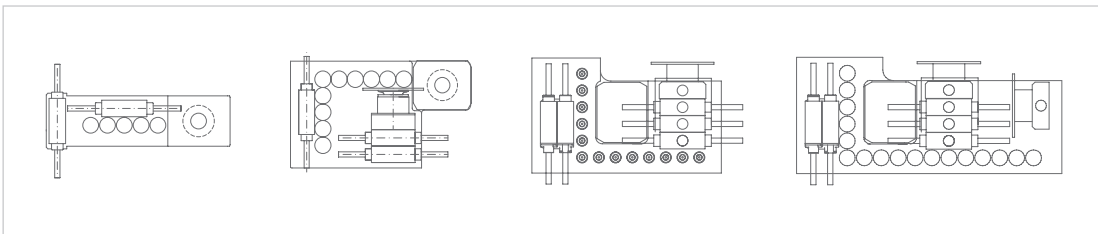
# WORKING UNIT CONFIGURATION



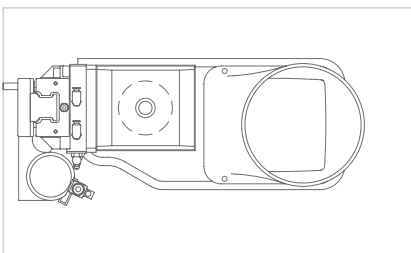
4-axis milling unit with power up to 19.2 kW.



5-axis milling unit with power of 16.5 kW.



Available boring heads from 9 to 29 positions: BHZ 9 - BHZ 17 L - BHZ 24 L - BHZ 29 2L.



Vertical milling unit.  
Motor power 7.2 kW



Vertical milling unit with right or left rotation, with manual tool change.

Used for light milling operations, machining operation start-up, or edge trimming/rounding of the edgebanding strip without having to make a tool change.

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

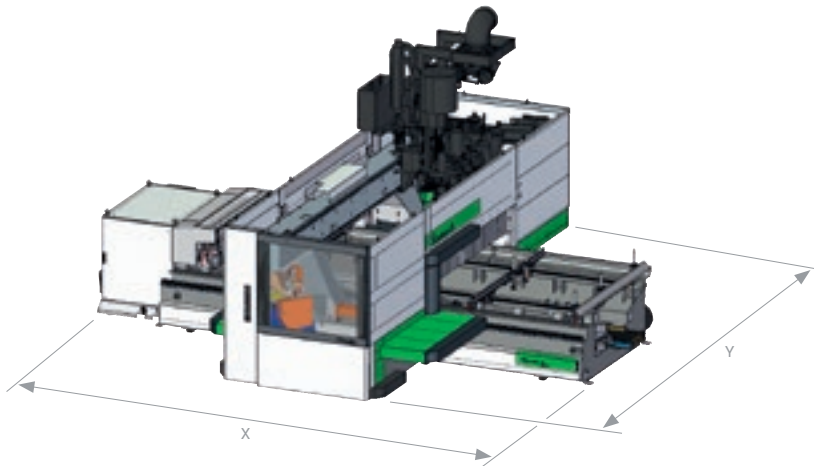
## WORKING TABLE

		Z	Y	X	X pendulum	X pendulum with suspension (***)
Rover A Edge 1532	mm/inch	245/9.6 (*) 75/2.9 (**)	1550/61 (max loadable panel thickness 1560/61.4)	3140/124	1000/39	1415/56
Rover A Edge 1542	mm/inch			4140/162	1500/59	1915/75
Rover A Edge 1556	mm/inch			5540/218	2200/87	2615/103
Rover A Edge 1832	mm/inch		1850/72.8 (max loadable panel thickness 1860/73.2)	3140/124	1000/39	1415/56
Rover A Edge 1842	mm/inch			4140/162	1500/59	1915/75
Rover A Edge 1856	mm/inch			5540/218	2200/87	2615/103

(\*) With H29 vacuum modules, the max tool length is 160mm, including the HSK aggregate in the Revolver magazine.

(\*\*) With edgebanding setting.

(\*\*\*) The pendulum processing with suspension leaves the availability of an extra workable area; the loading operation is not allowed during the edgebanding operations on the opposite side. For routing and edge finishing operations the same limit can be selected in the program to choose a better productivity or better quality.



## FULL BUMPER FOOT PRINT

Max speed 25 m/min - 82 ft/min

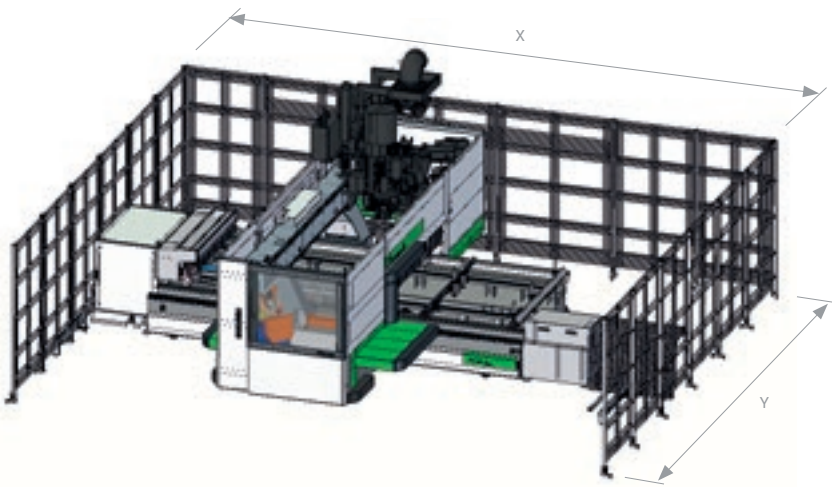
		X	Y	Area (m²)	X + opt (*)	Y + opt (*)
Rover A Edge 1532	mm/inch	7368/290	6000/236	44,2	7748/305	5550/218
Rover A Edge 1542	mm/inch	8368/329		50,2	8748/344	
Rover A Edge 1556	mm/inch	9768/384		58,6	10148/399	
Rover A Edge 1832	mm/inch	7368/290	6150/242	45,3	7748/305	5700/224
Rover A Edge 1842	mm/inch	8368/329		51,5	8748/344	
Rover A Edge 1856	mm/inch	9768/384		60,1	10148/399	

(\*) To install the machine against a back wall.

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).

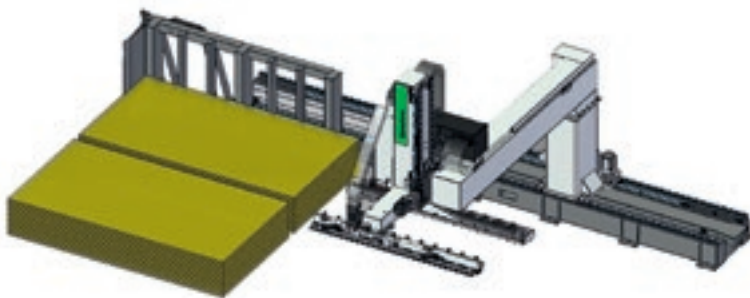
The measurement was carried out in compliance with UNI EN ISO 3746, UNI EN ISO 11202:2010 and subsequent modifications. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Despite the fact that there is a relationship between emission and exposure levels, 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.



**OVERALL DIMENSIONS  
PHOTOCELS + BUMPER + NETS**

Max. speed 60 m/min - 197 ft/min

		X	Y	Area (m²)
Rover A Edge 1532	mm/inch	7573/298	6336/249	48,0
Rover A Edge 1542	mm/inch	8573/337		54,3
Rover A Edge 1556	mm/inch	9973/393		63,2
Rover A Edge 1832	mm/inch	7573/298		48,0
Rover A Edge 1842	mm/inch	8573/337		54,3
Rover A Edge 1856	mm/inch	9973/393		63,2



**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.



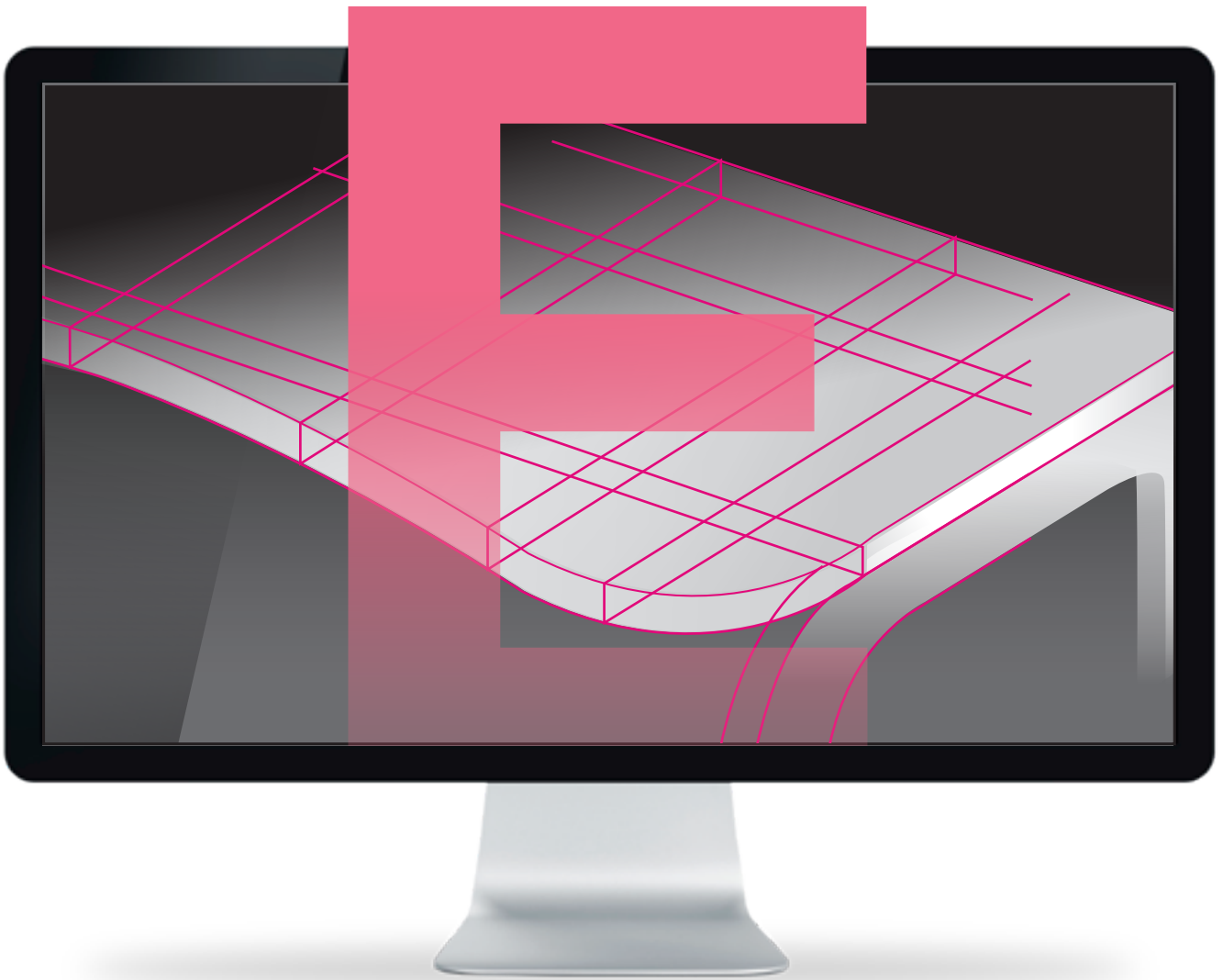
# SIMPLIFYING EDGEBANDING PROGRAMMING



**B\_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 edgbanding operation sequence.
- Easy to understand and operate.
- Simplified management of edgbanding strips and edgbanding devices





# MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER

**SMART  
CONNECTION**  
Powered by Retuner



**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

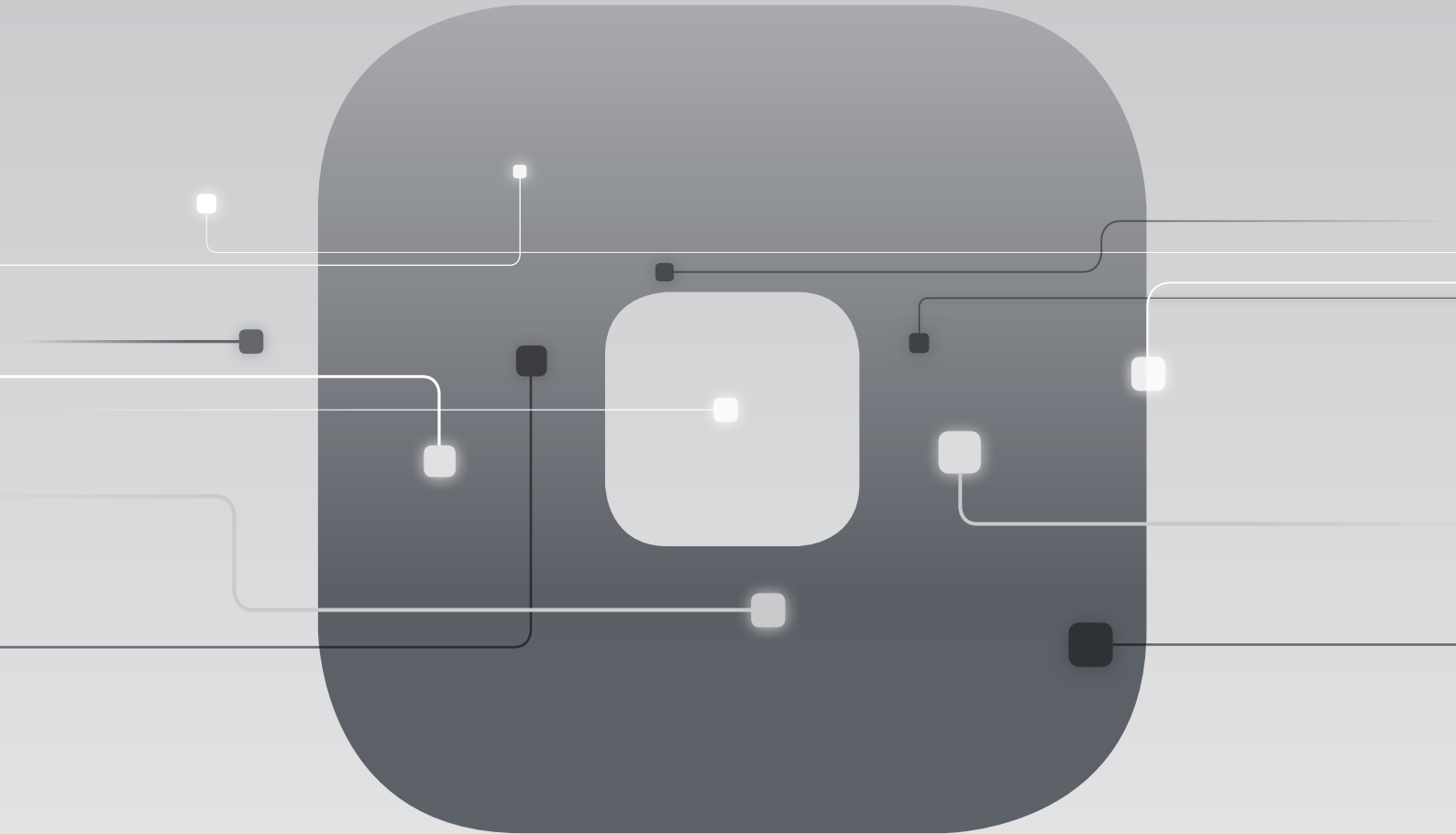
SCHEDULE

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



in collaboration with **accenture**

# 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

# MADE WITH BIESSE

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

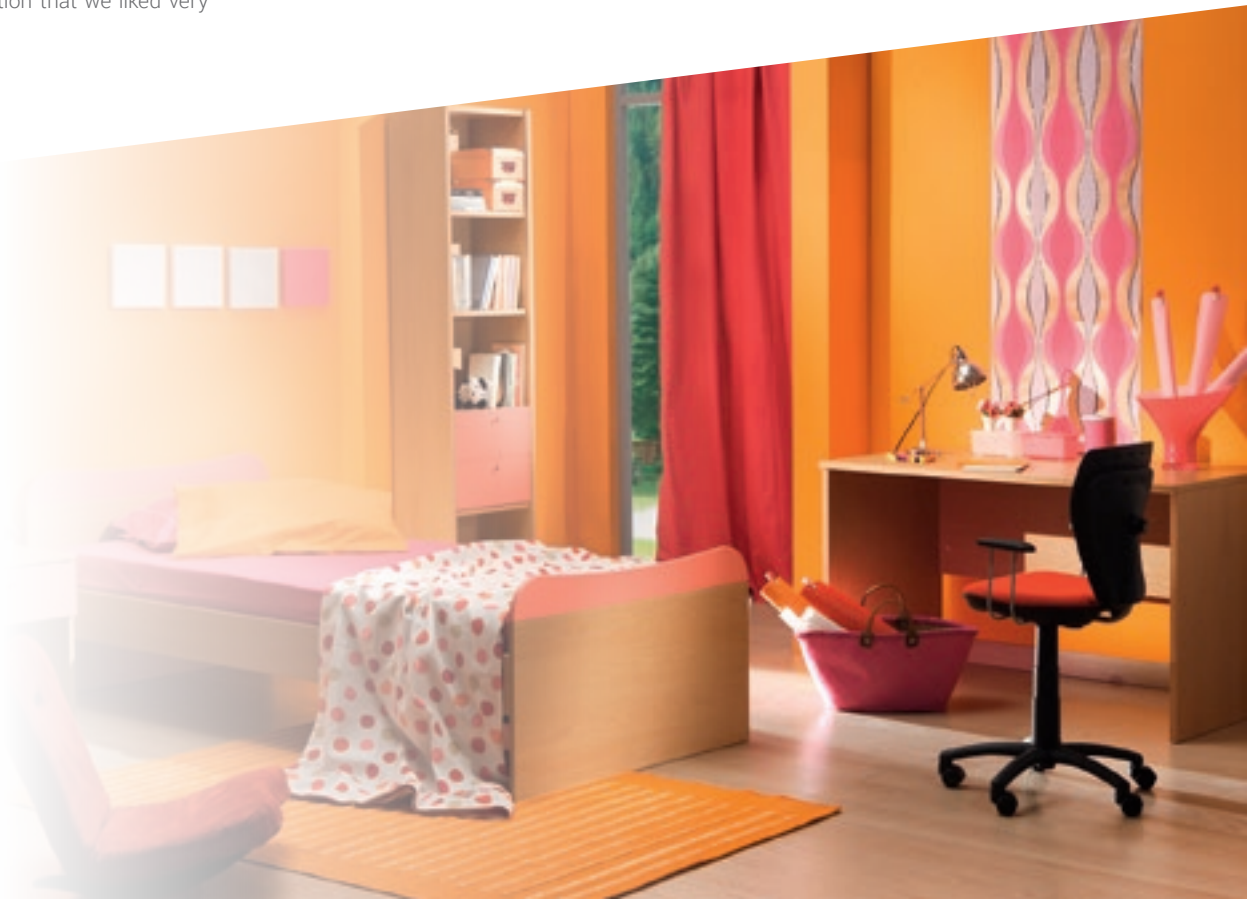
"We were looking for a solution that would be so innovative that it would satisfy all our needs at the same time," states the manufacturing manager of one of the world's largest furniture manufacturers.

"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](http://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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