

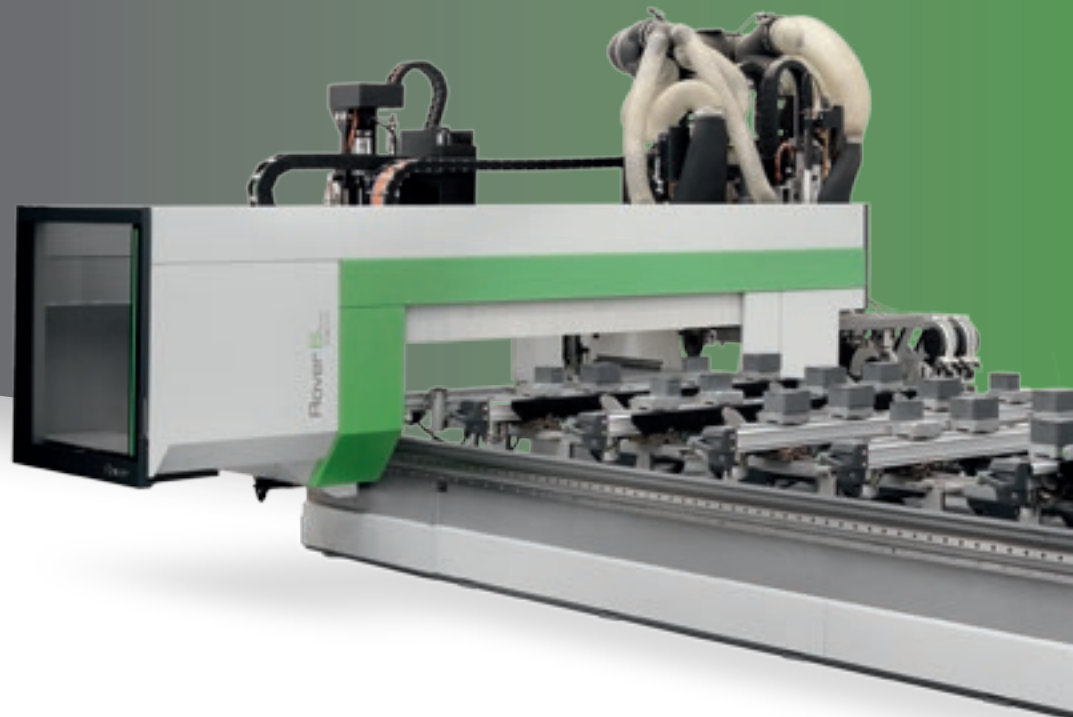
PRO VER B EDGE

NC EDGEBANDING
MACHINING CENTRE



 **BIESSE**

WORKING CENTRES FOR SHAPED EDGEBANDING



THE MARKET DEMANDS

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.





UNIQUE TECHNOLOGICAL SOLUTIONS FOR OPTIMAL PERFORMANCE

5 customisable configurations for the widest range of production needs.



Technological solutions designed to meet the needs of flexible production without sacrificing productivity. The combination of 5 axis together with 4 axis electrospindles allows the processing of many types of components.



5-axis operating section of 16.5 kW, designed for solid wood. Greater power and rigidity for using large tools and carrying out heavy-duty removal operations.

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

A team of specialised sales engineers can understand production requirements and suggest the optimal machine configuration.



3 or 4 axis configuration allows for the processing of all types of furniture elements, with a minimal investment.



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

This configuration is designed for optimum productivity. Simultaneous machining of two pieces in milling and boring is possible. Tool change can occur while the machine is running.

ROVER EDGE

ROBUST EDGEBANDING

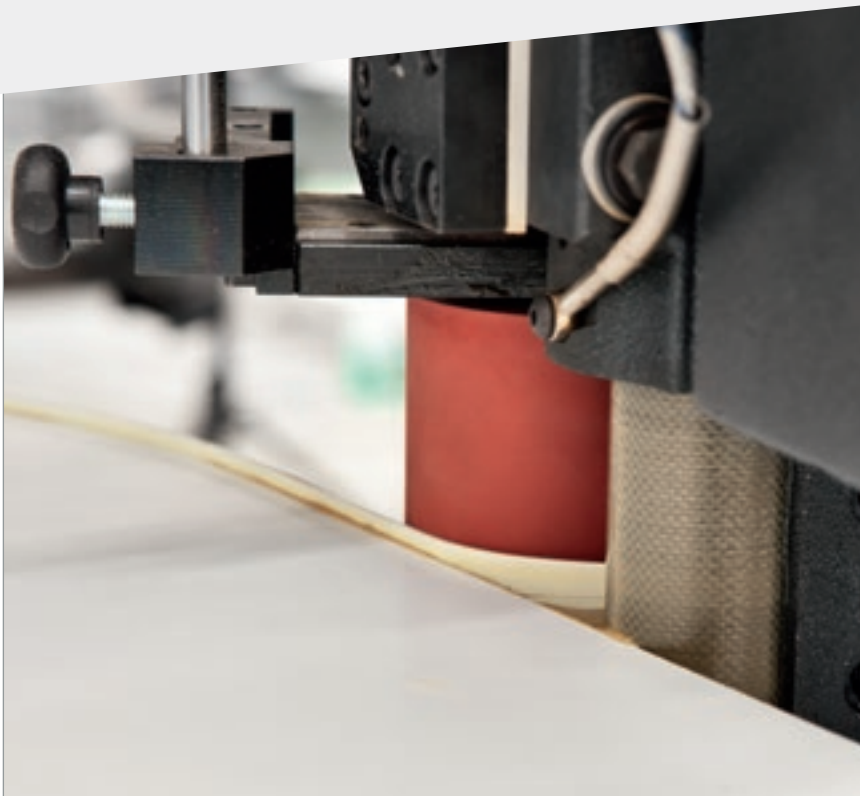
Maximum bonding, possibility of applying thin edges and 3D transparent edges, easy maintenance and panel cleaning during the machining cycle.

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.



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.



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



Presser roller quick changeover kit with reduced diameter version. This ensures the correct pressure is delivered when switching from thick to thin edges as well as small radius curves.



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

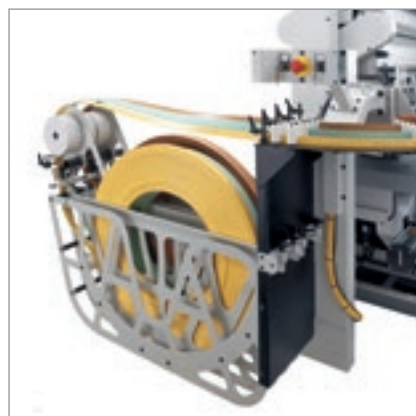
SOLUTIONS THAT INCREASE MACHINE PRODUCTIVITY



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.

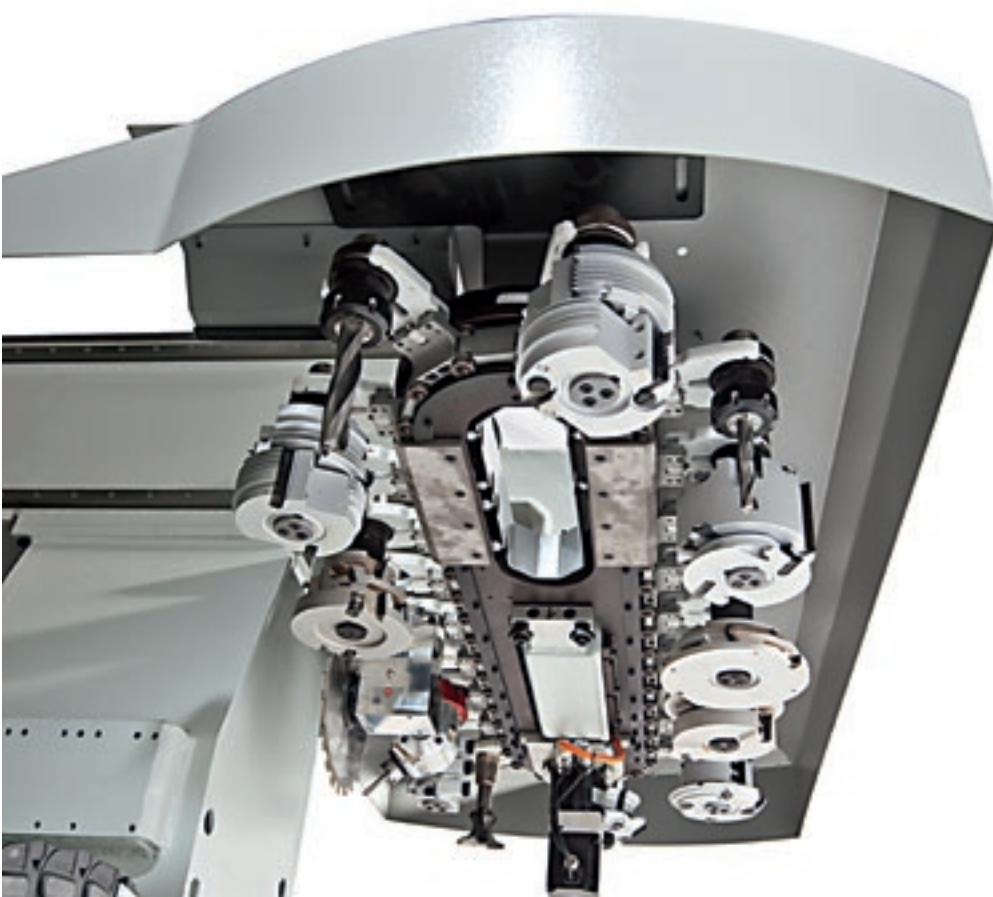


Thin or thick edges, either pre-cut or coiled, with automatic or manual feeding.

The machine can house up to 41 aggregates and tools.



Quick and easy drill change due to the exclusive spindle snap-on coupling system.



It is possible to switch from one machining operation to the next with no need for operator intervention for tool changes, thanks to the large number of tools and aggregates available in the tool magazine.

RAY FORCE SYSTEM

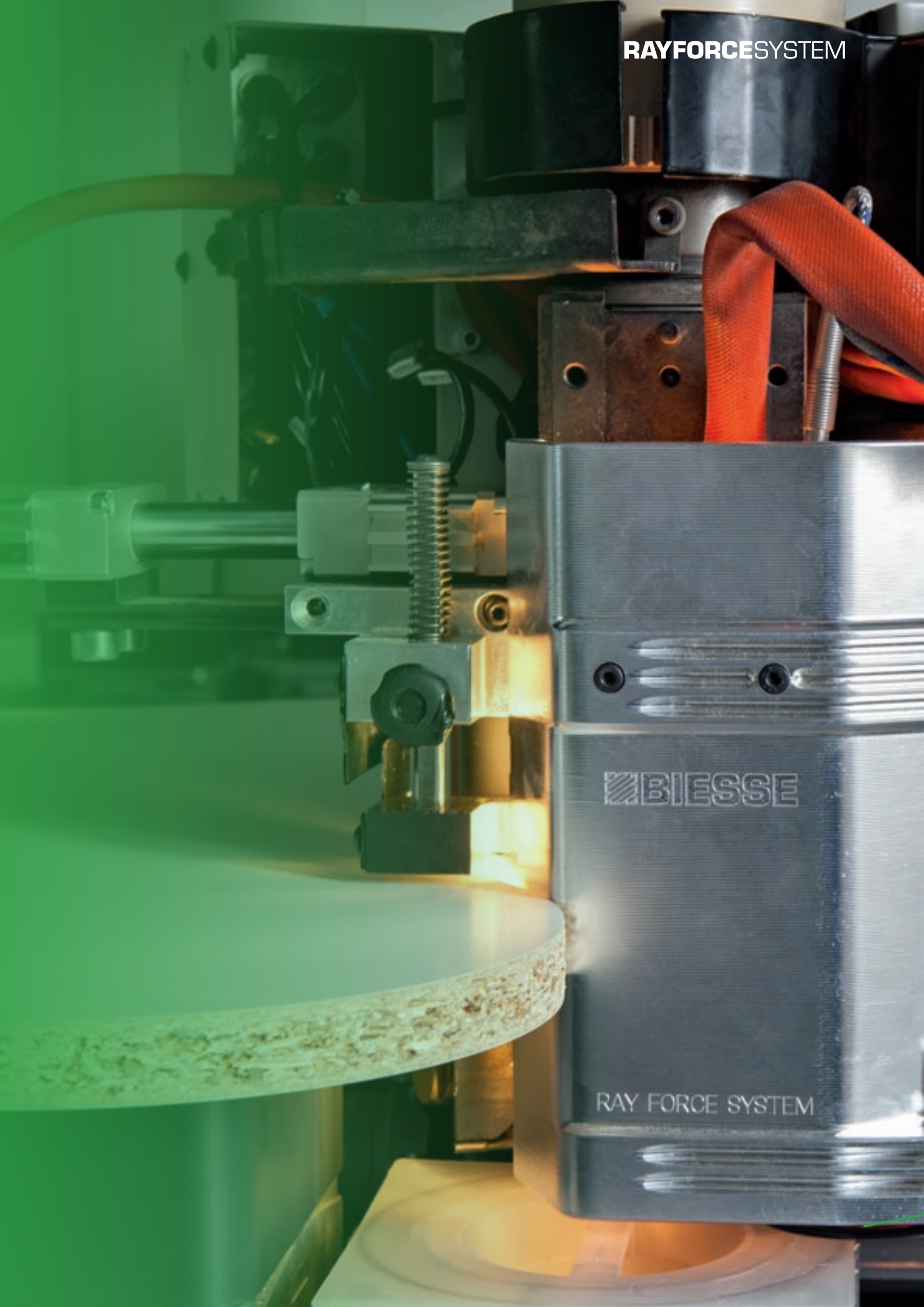
UNPARALLELED TECHNOLOGY

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 edgebanding strips on shaped panels: RAY FORCE SYSTEM. Its revolutionary nature is based on an incomparable technique which uses infrared lamps to fuse a reactive layer. A solution that is comparable to Air Force System technology applied to linear edgebanding.

The advantages are unmatched:

- maximum quality of finish,
- reduced energetic consumption,
- ease of use.

RAYFORCESYSTEM



BIESSE

RAY FORCE SYSTEM

MANY SOLUTIONS FOR PERFECT FINISHES

Edgebanding strip finishing aggregate with three functions. High feed and rotation speed, up to 14000 rpm. Particularly suitable for machining panels with a delicate or glossy surface, or with a protective film.



FINISHING AGGREGATES FOR EDGEBANDING OPERATIONS



A COMPLETE RANGE OF AGGREGATES FOR ALL MACHINING OPERATIONS



MAXIMUM ADHESION BETWEEN THE EDGEBANDING STRIP, GLUE AND PANEL, AND OPTIMUM FINISH.



Blower and anti-adhesive liquid dispensing aggregate.



Brusher aggregate with glue removal liquid dispenser.



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



Blower unit.



4-outlet blower unit for edgebanding strip finishing aggregates.

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.



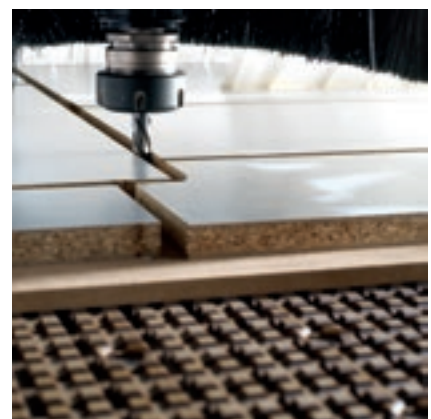
The double X-axis motorisation supports high speeds and accelerations whilst ensuring high quality finish and precision.

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.

IDENTITY

PRACTICAL DESIGN

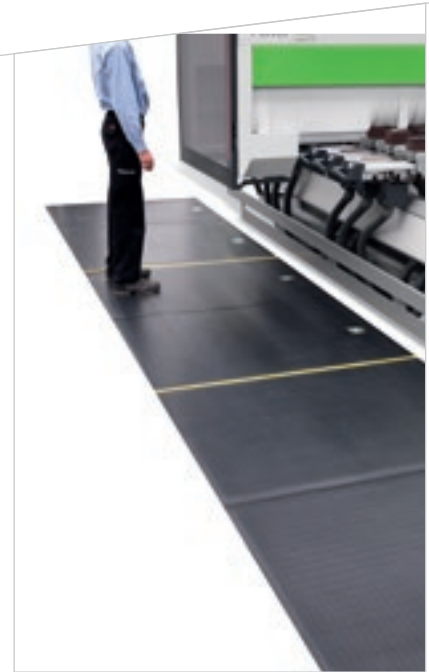
An innovative yet simple design is the hallmark of Biesse's distinctive identity.

The transparent polycarbonate reinforced protection door is designed to guarantee maximum visibility for the operator. Fitted with 5-colour LEDs indicating machine status, it ensures that processing phases can be easily and safely monitored.

ROVER

MAXIMUM OPERATOR SAFETY

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



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

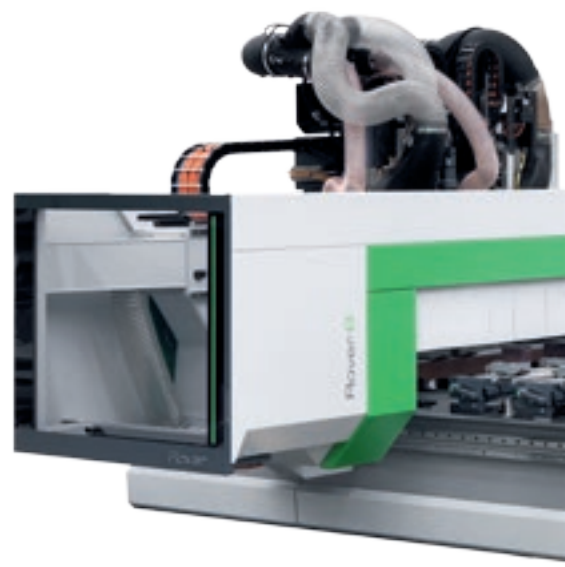


Side curtain guards to protect the working unit, which are movable to enable the machine to work at maximum speed in total safety.

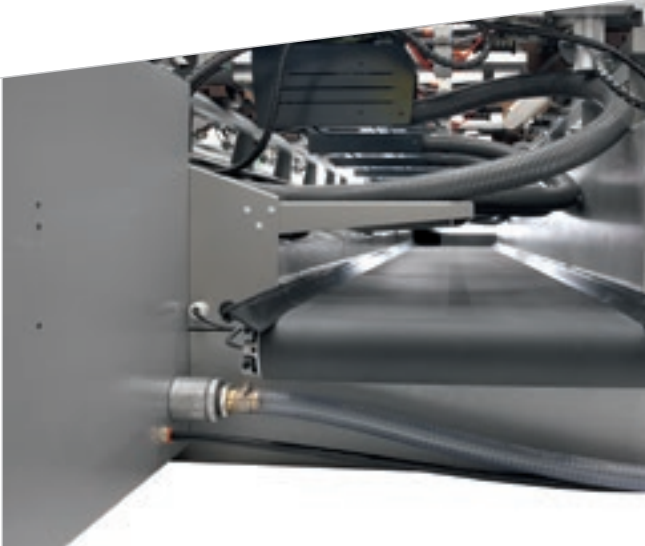


Remote control panel for direct and immediate operator control.

Maximum visibility of machining operation. LED bar with 5 colours showing machine status in real time.



OPTIMAL CLEANING OF MACHINED COMPONENTS AND WORK AREA



Motorised conveyor belt for the removal of chips and waste.



NC controlled chip **deflector**.



6-position (for 4 axes) and 13-position (for 5-axes) adjustable suction hood with deflector (chip conveyor) managed via NC.

THE MOST ADVANCED TECHNOLOGY CLOSE AT HAND



BPAD

Wi-Fi control console for performing the key functions required during the preparation of the working area and the tooling of the working units and tool holder warehouses.

The bPad is a valuable tool for supporting teleservicing, courtesy of the camera and bar code reader functions.



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 bSuite 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.

BPAD AND BTOUCH ARE AN OPTIONAL FEATURE WHICH CAN ALSO BE BOUGHT AFTER PURCHASING THE MACHINE, IN ORDER TO IMPROVE THE FUNCTIONALITY AND APPLICATION OF THE TECHNOLOGY AVAILABLE.

INDUSTRY 4.0 READY



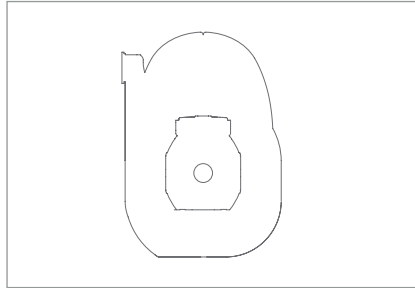
Industry 4.0 is the new industry frontier, based on digital technologies and on machines that speak to companies. The products driving this revolution can communicate and interact independently within production processes, which in turn are connected via intelligent networks.



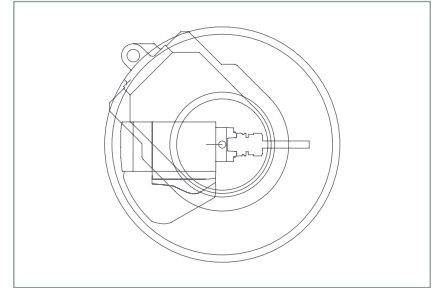
Biesse is dedicated to transforming the factories owned by our customers into real-time factories that are ready to provide digital manufacturing opportunities. Intelligent machines and software become indispensable tools that facilitate the daily work of those who machine wood and other materials on a daily basis.

INDUSTRY 4.0 READY

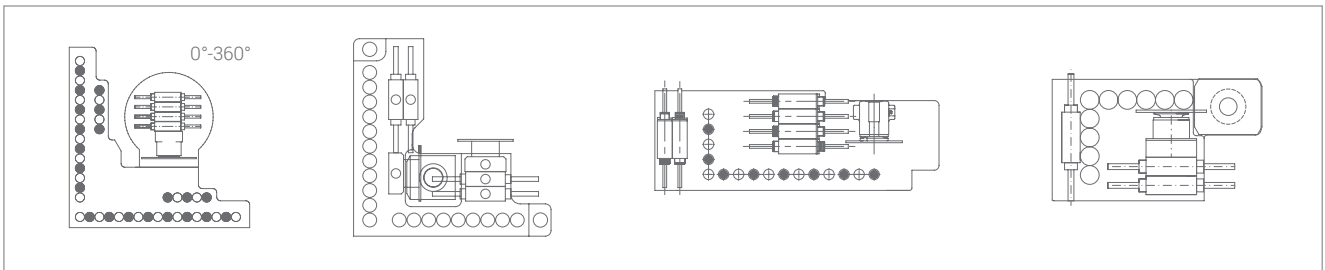
WORKING UNIT CONFIGURATION



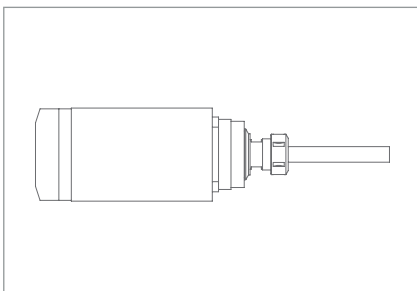
Milling unit with air or liquid cooling, ISO 30, HSK F63 and HSK E63 couplings and power from 13.2 to 19.2 kW.



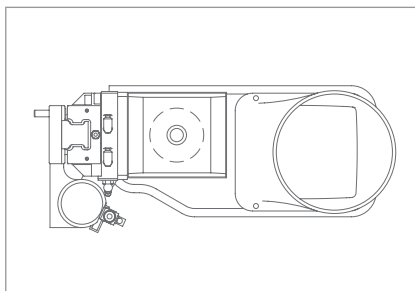
5 axes 13 kW with 24000 rpm or 16 kW with 18000 rpm.



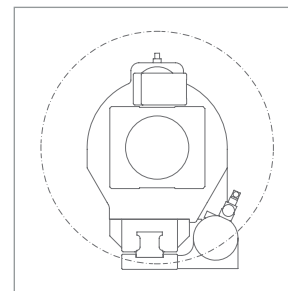
Boring heads available from 9 to 42 spindles:
TCH9L, BH17L, BH29L, BH30 2L, BHC42.



1 outlet horizontal milling units.



6 kW vertical milling unit.



Multi-function, with 360° rotation.



Electrospindles, boring heads and aggregates are designed and manufactured for Biesse by HSD, the global leader in the mechatronics sector.



New **C Torque axis**: more precise, quicker, more rigid.



The new **BH30 2L boring head** is equipped with automatic lubrication and a metal dust extraction cover which, together with liquid cooling guarantees maximum precision and long term reliability.



Fixed vertical motor dedicated to additional milling machining operations (slot, anti-splintering, etc.).



Horizontal motor with one outlet for lock routing and horizontal machining operations.



The NC controlled **multi-function unit** can be infinitely positioned on a 360 (degree) rotation. It can also be used to house aggregates for specific machining operations such as pocketing for locks, hinges, deep horizontal holes and edge-trimming.

LOADING AND UNLOADING SOLUTIONS

Automated cell for machining a batch of panels or doors.

Synchro is a handling device with 4 controlled axes which are actioned by the Rover machining centre. It collects the panels to be machined from a stack, positions them in reference to a point of origin provided by the machining centre and, once the machining operation is complete, deposits them in an area designed to accommodate the stack of machined panels. The working cycle is executed in automatic mode until the entire batch to be processed is complete.



Device for the removal of porous panels or those with special finishes

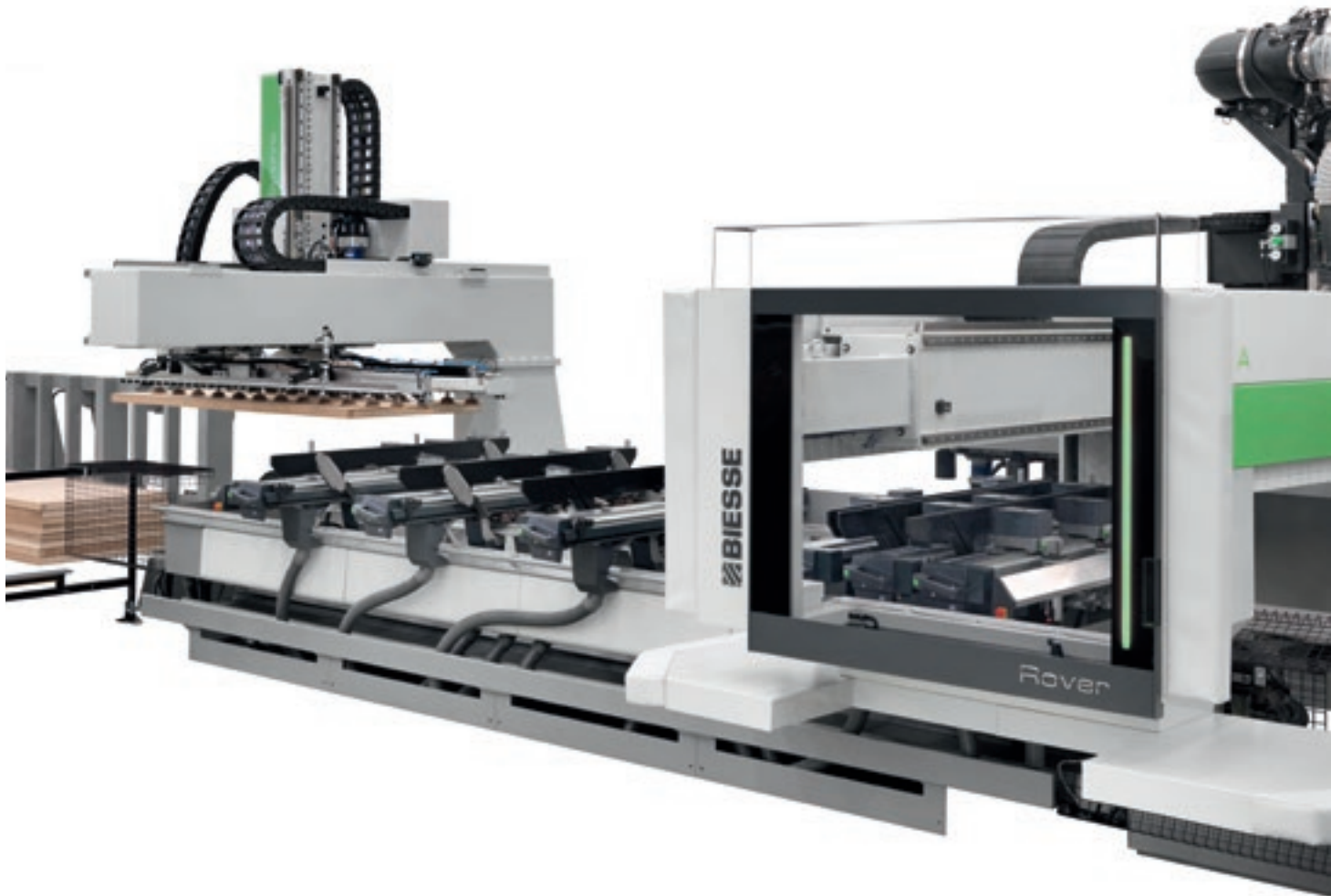
It increases the reliability and the repeatability of the automatic cell operation cycle, even when machining porous materials or those with special finishes, which are often supplied with a protective film.



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.



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.

Synchro can be positioned to the left or right of the machining centre.
Flow of materials that are consistent with the customer facility production cycle.

- ▶ Prevents damage caused by manual handling of materials;
- ▶ extremely simple user interface, integrated into the machining centre programming functions.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

BSOLID 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, with endless possibilities.
- 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.





SIMPLIFYING EDGEBANDING PROGRAMMING

BEDGE IS A BSUITE PLUG-IN, SEAMLESSLY INTEGRATED FOR EDGE BANDING PLANNING. BY UTILISING BSUITE'S DESIGN AND SIMULATION CAPABILITIES, BEDGE MAKES EDGE BANDING EVEN THE MOST COMPLEX SHAPES, VERY SIMPLE.

- Automatic generation of the edg banding operation sequence.
- Easy to understand and operate.
- Simplified management of edg banding aggregates.



IDEAS TAKE FORM AND SHAPE

BCABINET IS THE BSUITE PLUGIN FOR FURNITURE DESIGN. IT ALLOWS USERS TO DEVELOP DESIGNS FOR A GIVEN SPACE, AND TO QUICKLY IDENTIFY THE INDIVIDUAL ELEMENTS THAT MAKE IT UP.

- With the new plugin, it is easy to draw both individual items of furniture and complete furnishings for a range of spaces.
- Offering optimal integration with bSuite, users can move from design to manufacturing in just a few clicks.
- Total control and maximum optimisation of the furniture design and creation process, to achieve the highest levels of efficiency.

BCABINET



BCABINET

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**

in collaboration with  **accenture**

SERV ICE & PARTS

Direct, seamless co-ordination of service requests between Service and Parts. Support for Key Customers by dedicated Biesse personnel, either in-house and/or at the customer's site.

BIESSE SERVICE

- ✔ Machine and system installation and commissioning.
- ✔ Training centre dedicated to Biesse Field engineers, subsidiary and dealer personnel; client training directly at client's site.
- ✔ Overhaul, upgrade, repair and maintenance.
- ✔ Remote troubleshooting and diagnostics.
- ✔ Software upgrade.

500

Biesse Field engineers in Italy and worldwide.

50

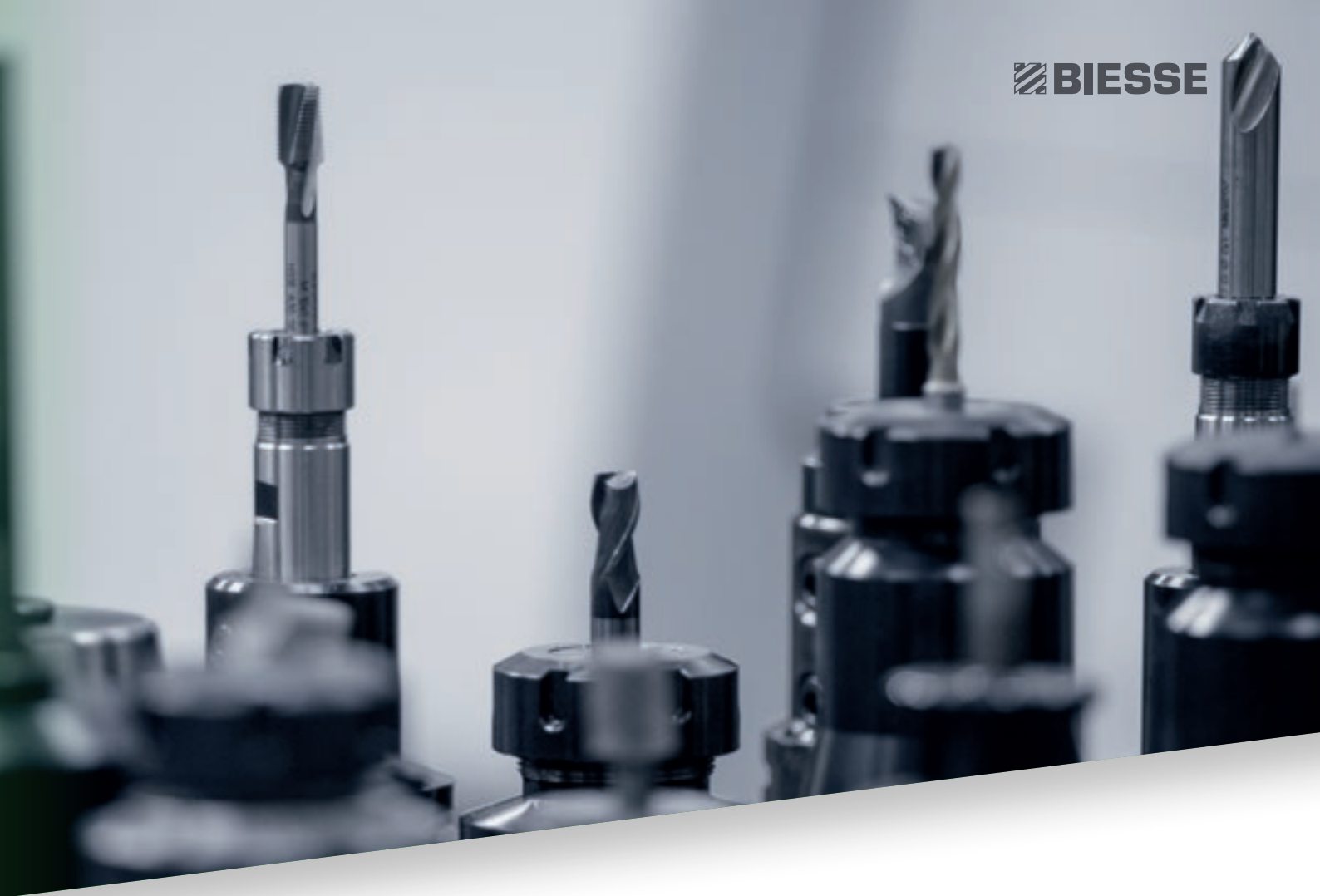
Biesse engineers manning a Teleservice Centre.

550

certified Dealer engineers.

120

training courses in a variety of languages every year.

A close-up photograph of several metal drill bits and tool components, arranged in a row. The bits are of different sizes and designs, some with black coatings. The background is a soft, out-of-focus grey.

The Biesse Group promotes, nurtures and develops close and constructive relationships with customers in order to better understand their needs and improve its products and after-sales service through two dedicated areas: Biesse Service and Biesse Parts. With its global network and highly specialized team, it offers technical service and machine/component spares anywhere in the world on-site and 24/7 on-line.

BIESSE PARTS

- ✔ Original Biesse spares and spare kits customized for different machine models.
- ✔ Spare part identification support.
- ✔ Offices of DHL, UPS and GLS logistics partners located within the Biesse spare part warehouse, with multiple daily pick-ups.
- ✔ Order fulfillment time optimized thanks to a global distribution network with de-localized, automated warehouses.

92%
of downtime machine orders fulfilled
within 24 hours.

96%
of orders delivered in full on time.

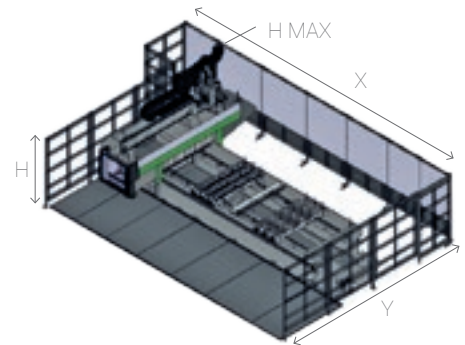
100
spare part staff in Italy and worldwide.

500
orders processed every day.

TECHNICAL SPECIFICATIONS

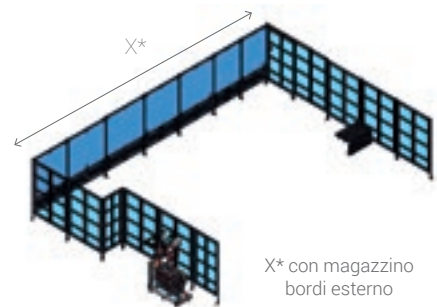
WORKING FIELDS

		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
	inches	151,8	63,0	114,2	63,0	9,6	11,4
Rover B Edge 1660	mm	5055	1600	4100	1600	245	290
	inches	199,0	63,0	161,4	63,0	9,6	11,4
Rover B Edge 1667	mm	6735	1600	5780	1600	245	290
	inches	265,2	63,0	227,6	63,0	9,6	11,4
Rover B Edge 1684	mm	8415	1600	7460	1600	245	290
	inches	331,3	63,0	293,7	63,0	9,6	11,4
Rover B Edge 1650	mm	5055	1900	4100	1900	245	290
	inches	199,0	74,8	161,4	74,8	9,6	11,4
Rover B Edge 1667	mm	6735	1900	5780	1900	245	290
	inches	265,2	74,8	227,6	74,8	9,6	11,4
Rover B Edge 1984	mm	8415	1900	7460	1900	245	290
	inches	331,3	74,8	293,7	74,8	9,6	11,4
Rover B Edge 2250	mm	5055	2200	4100	2200	245	290
	inches	199,0	86,6	161,4	86,6	9,6	11,4
Rover B Edge 2267	mm	6735	2200	5780	2200	245	290
	inches	265,2	86,6	227,6	86,6	9,6	11,4
Rover B Edge 2284	mm	8415	2200	7460	2200	245	290
	inches	331,3	86,6	293,7	86,6	9,6	11,4



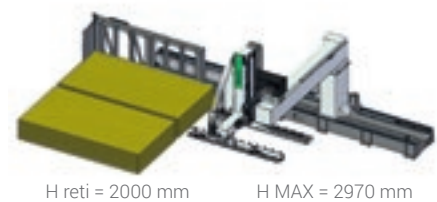
FOOT PRINT

	X	X*	Y	H	H MAX
	mm	mm	mm	mm	mm
Rover B Edge 1638	8440	8680	5990	2000	2650
Rover B Edge 1650	9620	9860	5990	2000	2650
Rover B Edge 1667	11280	11520	5990	2000	2650
Rover B Edge 1684	12980	13220	5990	2000	2650
Rover B Edge 1950	9620	9860	6340	2000	2650
Rover B Edge 1967	11520	11280	6340	2000	2650
Rover B Edge 1984	12980	13220	6340	2000	2650
Rover B Edge 2250	9620	9860	6680	2000	2650
Rover B Edge 2267	11520	11280	6680	2000	2650
Rover B Edge 2284	12980	13220	6680	2000	2650



WORKING TABLE SYNCRO

		MIN	MAX
Length	mm	500	2500
Width	mm	200	1350
Thickness	mm	16	60
Weight	Kg	-	100
Useful height of stack	mm	-	1000
Height of stack from ground (including 145 mm Europallet)	mm	-	1145
X/Y/Z axis speed		85/85/30 m/min	
Edges thickness		0,4-3 mm	
Panel thickness for edgebanding strip processing		10-60 mm	
Available coils		02/04/06	



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.

A weighted sound pressure level (LpA) during machining for operator workstation on vane-pump machine Lpa=79dB(A) Lwa=96dB(A) A-weighted sound-pressure level (LpA) for operator workstation and sound power level (LwA) during machining on cam-pump machine Lwa=83dB(A) Lwa=100dB(A) K measurement uncertainty dB(A) 4

The measurement was carried out in compliance with UNI EN 848-3:2007, UNI EN ISO 3746: 2009 (sound power) and UNI EN ISO 11202: 2009 (sound pressure levels at workstation) during panel machining. 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.

BIESSE CNC EDGBANDING RANGE

CNC - EDGEBANDING



ROVER A EDGE



ROVER B EDGE



ROVER C EDGE



EDGE LINE

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

A photograph of a modern bedroom interior. The room features a bed with a patterned blanket, a desk with a chair, and a window with red curtains. The image is overlaid with a green gradient that fades from the left side.

LIVE THE EXPERIENCE

BIESSEGROUP.COM



Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD.



BIESSEGROUP

