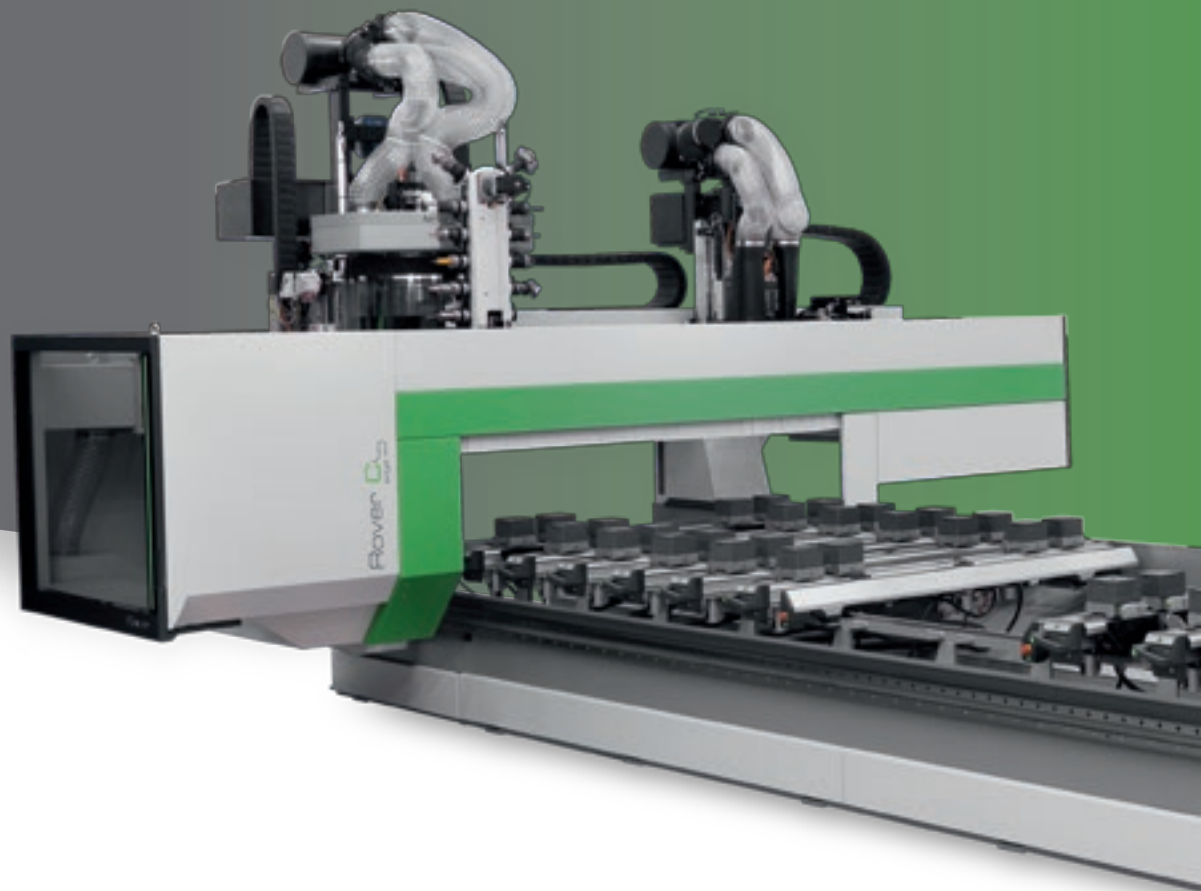


PRO VER C EDGE

NC EDGEBANDING
MACHINING CENTRE

 **BIESSE**

SHAPING AND EDGEBANDING WITHOUT COMPROMISES



THE MARKET DEMANDS

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 enhance and support technical expertise as well as process and material knowledge. **Rover C Edge** is the new edgeworking processing centre that offers the possibility to use a single machine for carrying out all the operations on a shaped, edge-banded panel. It's designed for heavy-duty operations that call for large tools and aggregates.



ROVER C EDGE

- ▶ PERFORMANCE ABOVE THE INDUSTRY STANDARD
- ▶ MORE MACHINING OPERATION OPTIONS
- ▶ PERFECT EXECUTION OF MACHINING OPERATIONS
- ▶ CYCLE-TIME REDUCTION FOR HIGH PRODUCTIVITY
- ▶ FULL WORKABILITY WITH LARGE PANELS
- ▶ HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE.

PERFORMANCE ABOVE THE INDUSTRY STANDARD

Unique technological solutions to meet productivity and flexibility requirements of the most demanding manufacturers.



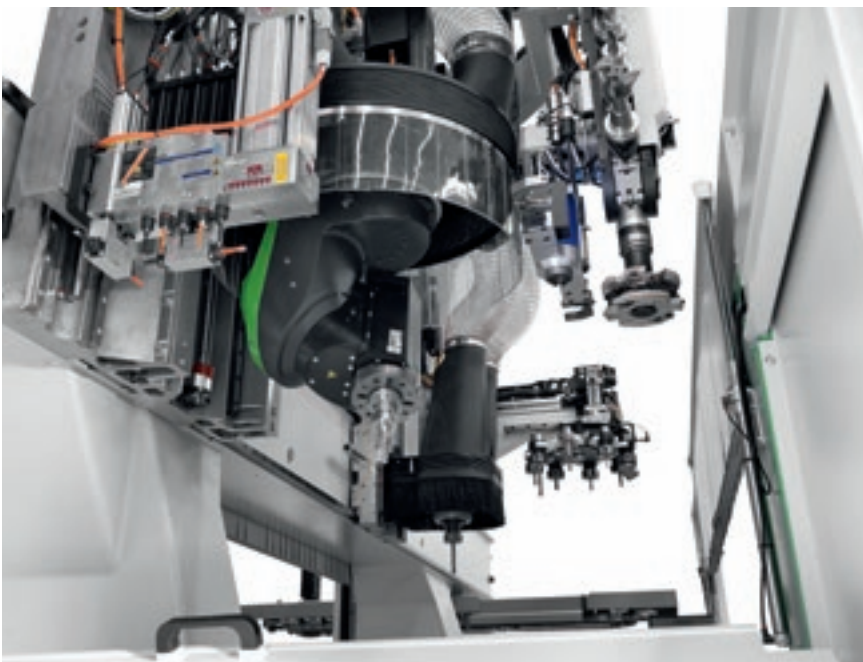
Operating section with 5 interpolating axes (21.5 kW and 8000 rpm), the most powerful on the market, which supports complex processing operations whilst ensuring quality and precision.



The solutions developed for Rover C Edge enable quick tool changes coupled with reduced cycle times.



Processing of very high components thanks to 400 mm working height.



The possible combination of 5-axes and 4-axes units enables the processing of any type of product. Independent Y axes support tool changes whilst the machine is running, using the largest possible number of tools available on the machine.

Axes vector speed from 124 to 156 m/min and acceleration from 3.5 to 5 m/sec² for high productivity.

HIGH TECHNO LOGY

PRECISE POWER

Unique technological solutions to meet productivity and flexibility requirements of the most demanding manufacturers.

La The new operating section with 5 interpolating axes supports complex processing operations whilst ensuring quality and precision.

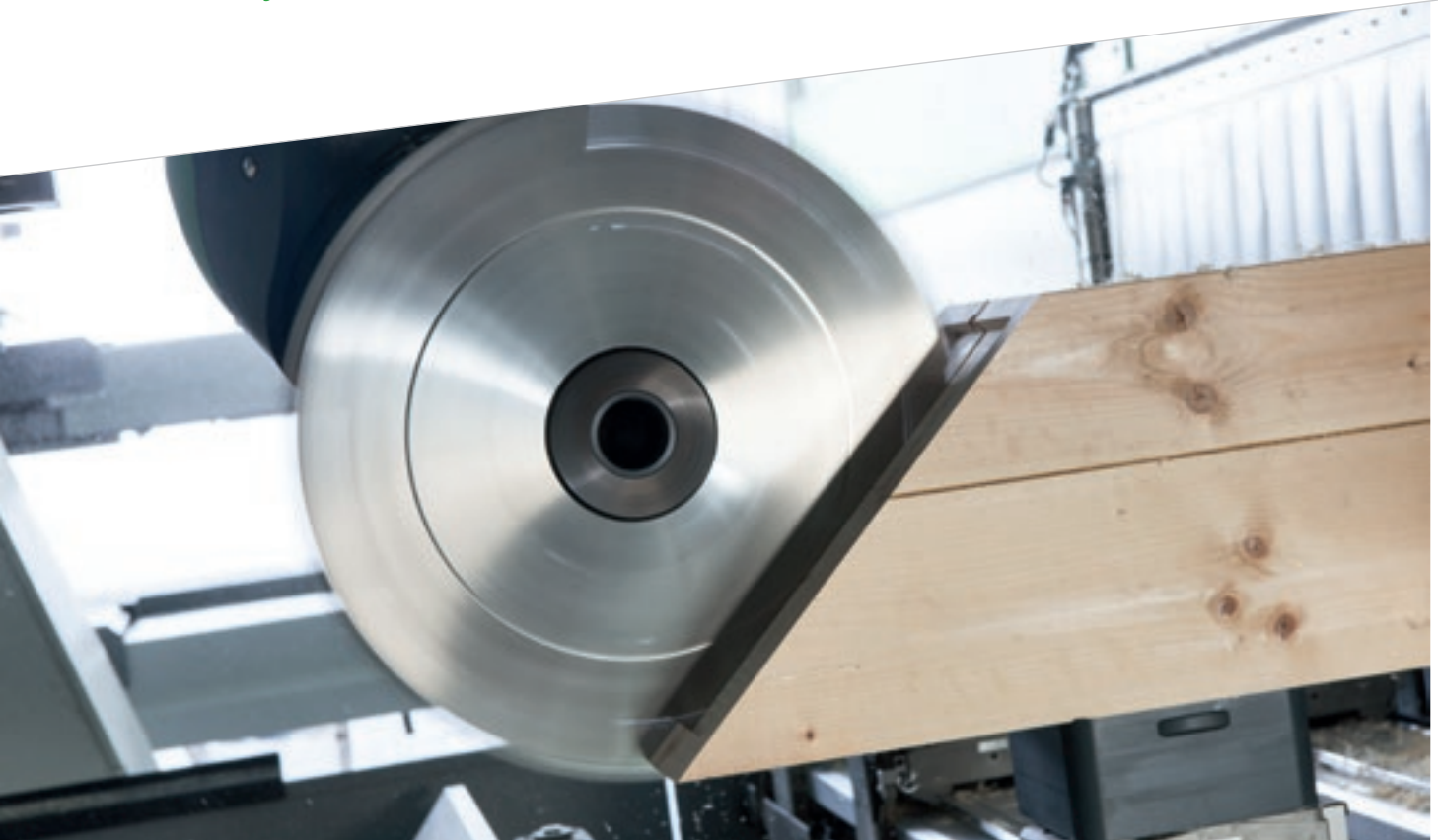
By combining 5 axes and 4 axes units it is possible to process any type of product.

Independent Y axes, that enable users to carry out tool changes without affecting cycle times, and high axes speed and acceleration guarantee high productivity.



MORE MACHINING OPERATION OPTIONS

The technology of the new Rover C edge supports the machining of complex-shaped pieces, guaranteeing quality, precision and absolute reliability over time.





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.

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.



 BIESSE

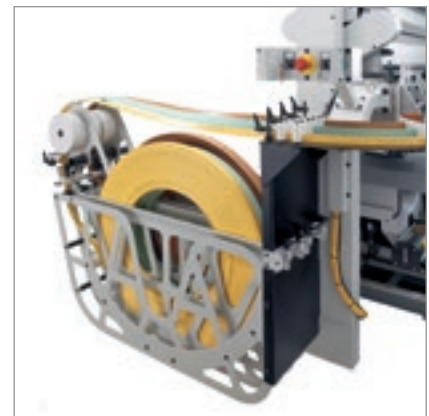
RAY FORCE SYSTEM

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.



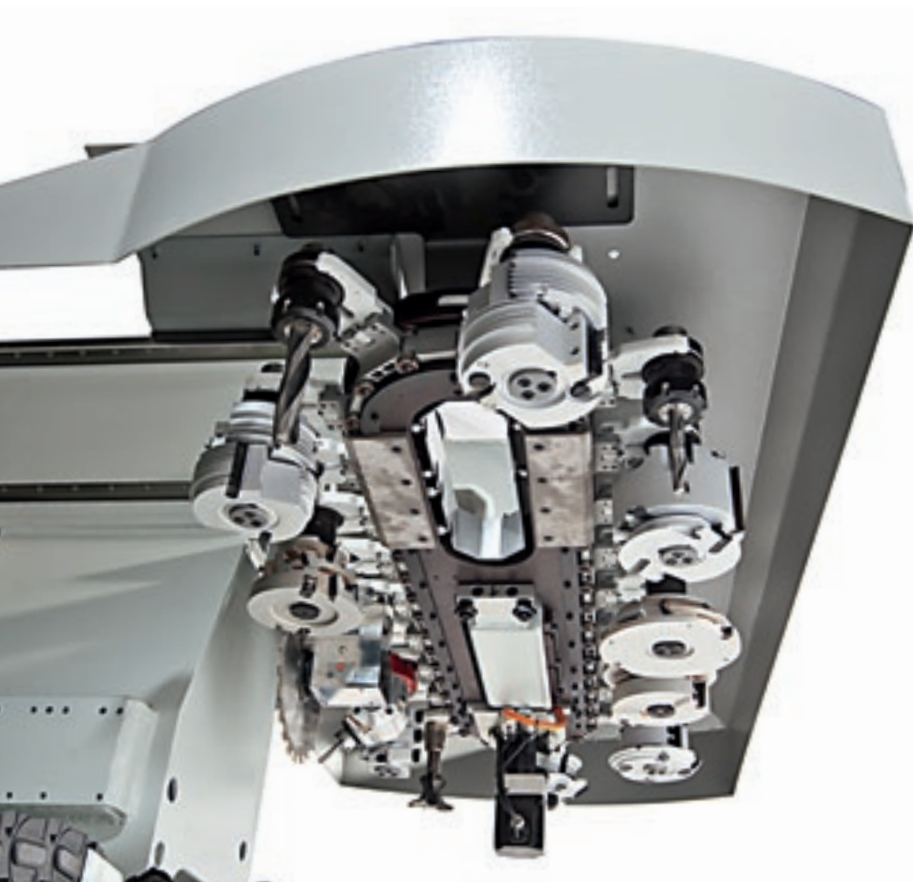
Thin or thick edges, either pre-cut or coiled, with automatic or manual feeding.



Vertical chain tool magazine on Y axis with 10-15 positions.



Independent Y axis allows tool changes whilst the machine is running, using the largest possible number of tools available in the magazine. The shuttle in the vertical chain magazine speeds up the tool change operation.



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.

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

					
R18 trimming aggregate	Trim cut aggregate for post-formed panels	Edge trimming/rounding aggregate with copying function	Corner rounding tool.	End trimmer	300mm edge trimming blade on 5-axis unit

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.

ROVER EDGE

ROBUST EDGEBANDING

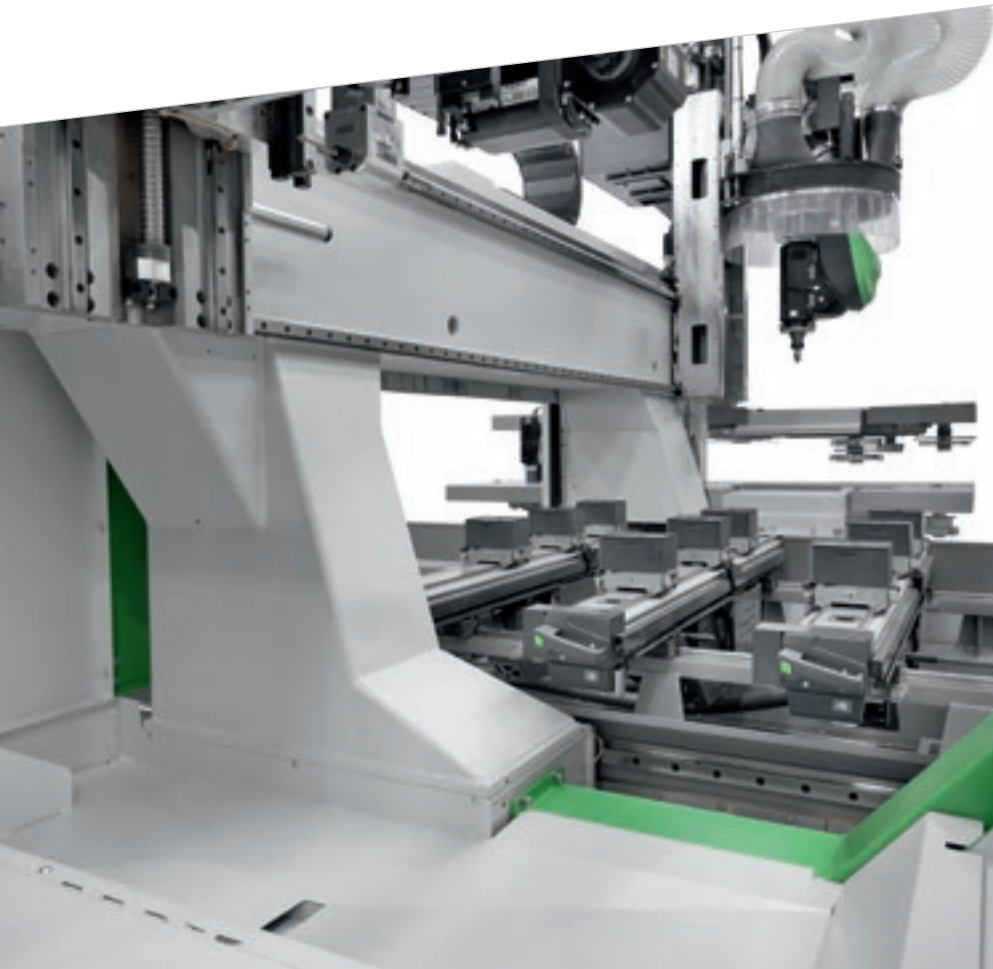
Maximum bonding, possibility of applying thin edges and 3D transparent edges, easy maintenance and panel cleaning during the machining cycle.

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.



PERFECT EXECUTION OF MACHINING OPERATIONS

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.

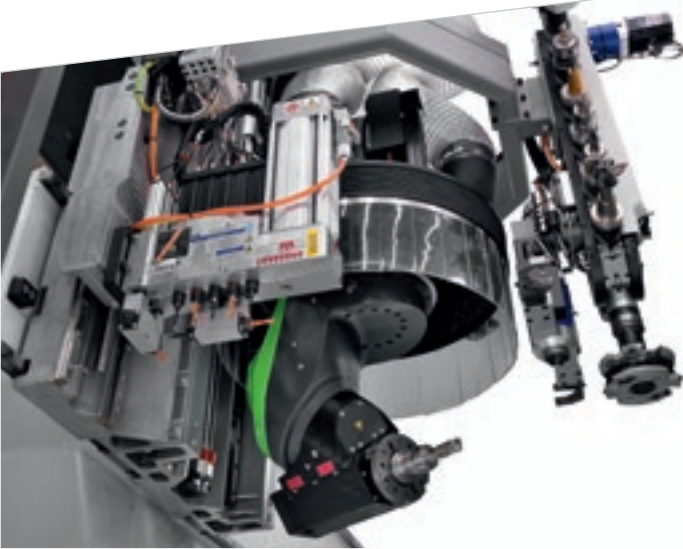


Automated lubrication ensures the continuous lubrication of the machine's main moving parts without the need for operator intervention.

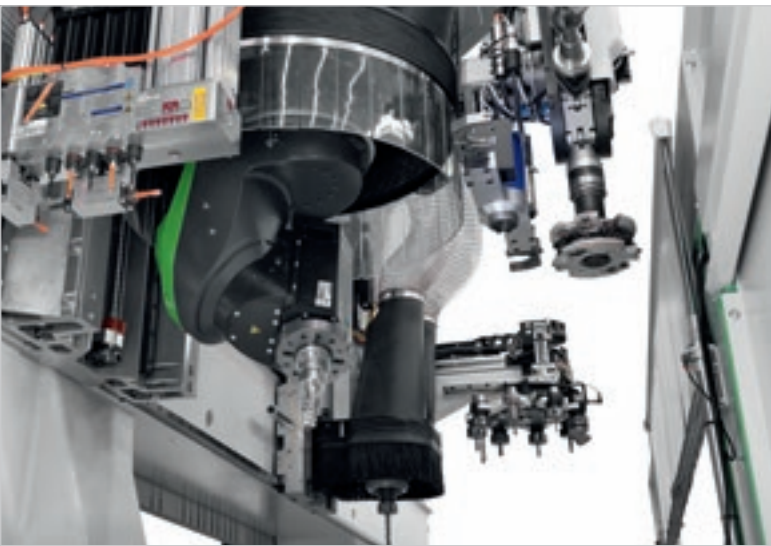


The **double X-axis motorisation** supports high speeds and accelerations whilst ensuring high quality finish and precision.

Configurations that meet the needs of production flexibility without foregoing high productivity.



Single Y carriage with 5 axes, a boring head and a tool magazine.



The twin Y carriage allows the 5-axis unit to be used independently of the 4-axis one.



The twin Y carriage allows the 5-axis unit to be used independently of the boring head.

REDUCED TOOL CHANGEOVER TIME

The Biesse work table is guaranteed to hold the work piece securely and ensures quick and easy tool changeover.



Modules for vacuum locking system.



Pneumatic Uniclamp.



Hyperclamp for rigid and precise locking.



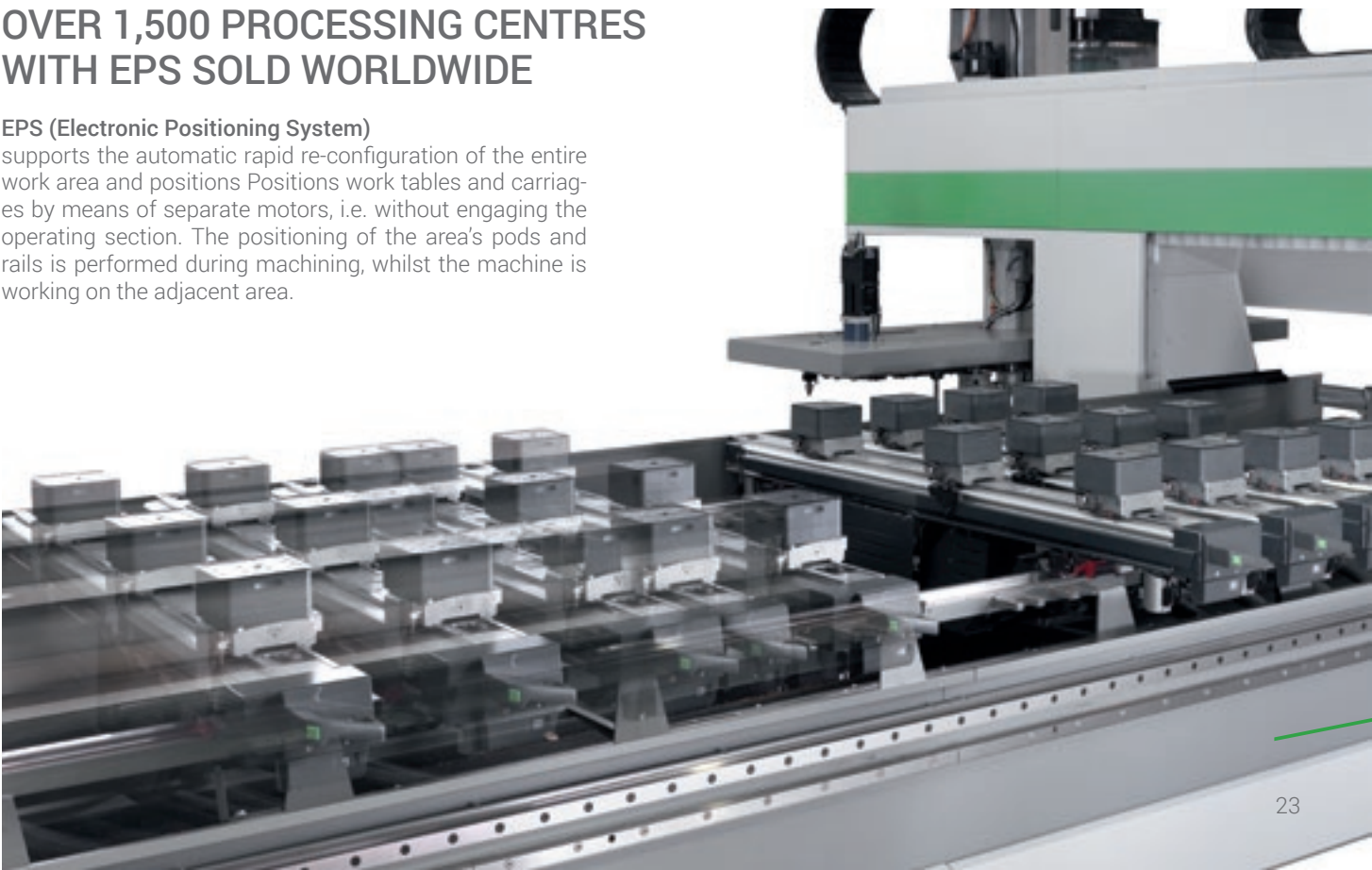
SA (Set Up Assistance)

The assisted set-up system, indicates to the operator where to position the panel, pods and rails to avoid potential collisions with the tool.

OVER 1,500 PROCESSING CENTRES WITH EPS SOLD WORLDWIDE

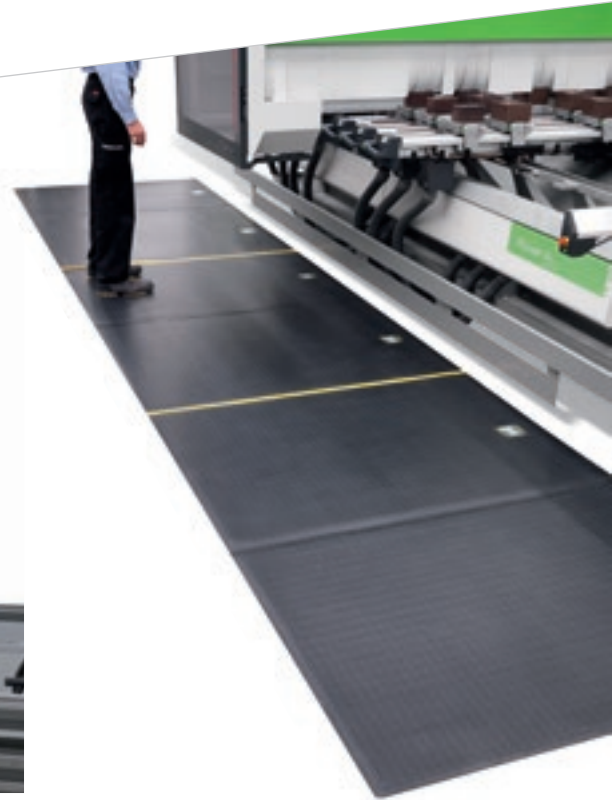
EPS (Electronic Positioning System)

supports the automatic rapid re-configuration of the entire work area and positions work tables and carriages by means of separate motors, i.e. without engaging the operating section. The positioning of the area's pods and rails is performed during machining, whilst the machine is working on the adjacent area.



MAXIMUM OPERATOR SAFETY

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.

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

SLICK AND EFFICIENT PRODUCTION FLOW





DESIGN OF INTEGRATED LINES OVER 100 METRES LONG

BiesseSystems provides a full project consultancy and management service to companies who wish to implement integrated technology solutions for their manufacturing processes.

A team of sector experts, capable of understanding and anticipating company needs, work with the customer from inception through to system installation and commissioning.

OVER 1000 SYSTEMS SOLD WORLDWIDE

- ▣ Design and installation of turn-key systems.
- ▣ Design and installation of automated and integrated production lines.
- ▣ Upgrading, refurbishment and integration of pre-existing production systems.

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**

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

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

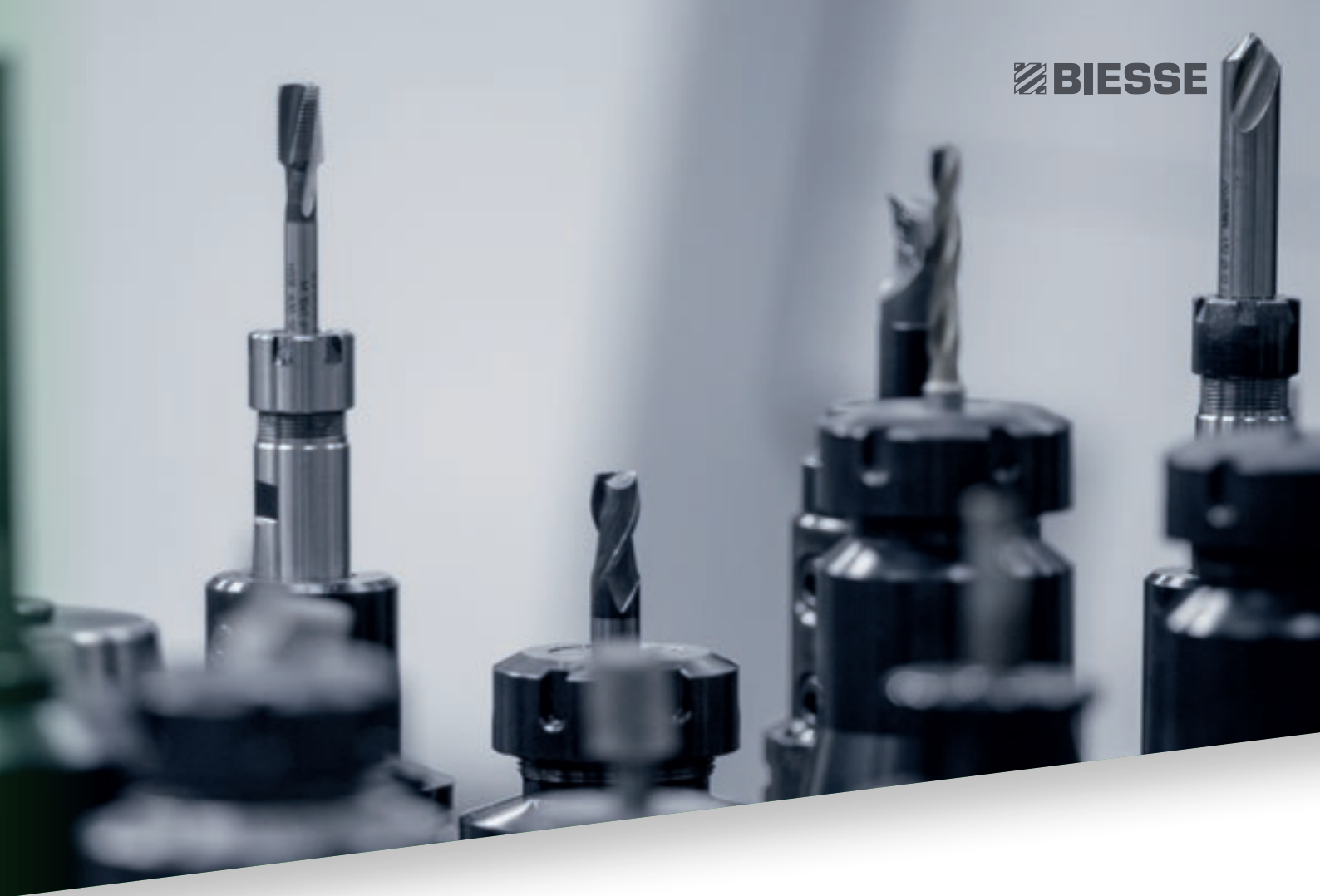
Biesse engineers manning a Teleservice Centre.

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 standard double-flute and others with more complex, multi-fluted designs. They are set against a blurred background, highlighting their metallic texture and sharp edges.

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.

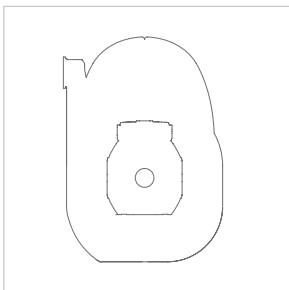
92%
of downtime machine orders fulfilled
within 24 hours.

96%
of orders delivered in full on time.

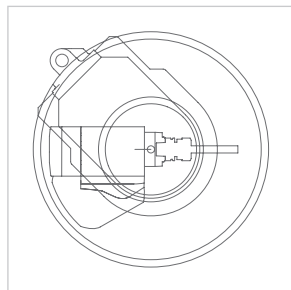
100
spare part staff in Italy and worldwide.

500
orders processed every day.

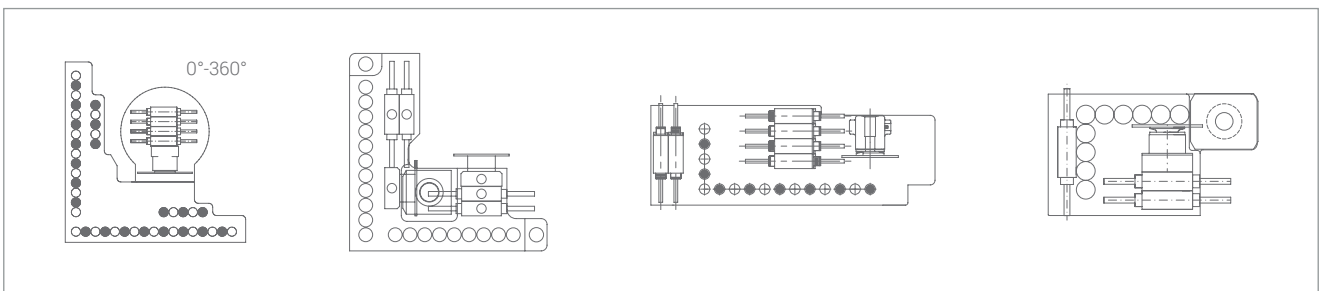
CUSTOMISABLE CONFIGURATIONS DEPENDING ON DIFFERENT PRODUCTION NEEDS



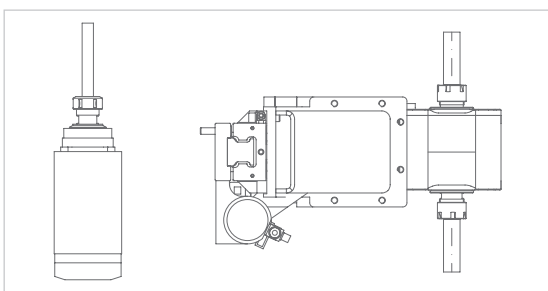
Milling head with air or liquid cooling and power up to 19.2 kW.



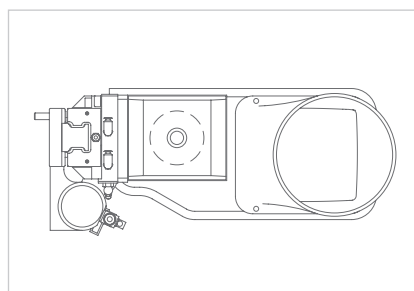
5-axis milling unit with 13 - 16.5 - 21.5 kW power.



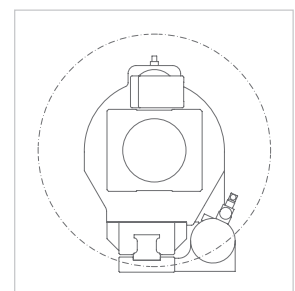
Boring heads available from 17 to 42 spindles:
BHC42/TCH9L - BH30 2L - BH29 - BH17.



1 or 2 outlet horizontal milling units.

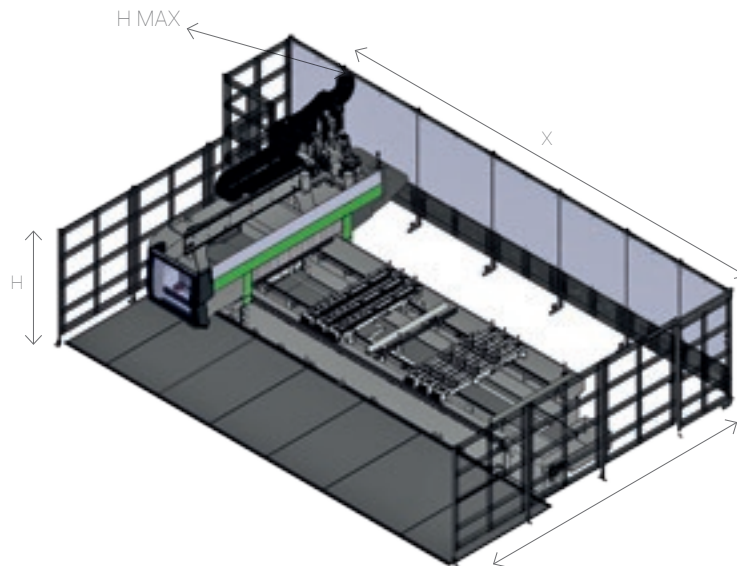


6 kW vertical milling unit.



Multi-function, with 360° rotation.

TECHNICAL SPECIFICATIONS



WORKING TABLE

		X1 milling	Y1 milling	X2 edgebanding	Y2 edgebanding	Z1 milling H74 modules	Z2 milling H29 modules
Rover C Edge 1948	mm	4825	1950	3785	1900	355	400
	inches	190,0	76,8	149,0	74,8	14,0	15,7
Rover C Edge 1965	mm	6505	1950	5465	1900	355	400
	inches	256,1	76,8	215,2	74,8	14,0	15,7

FOOT PRINT

		X CE mats	Y CE mats	X CE bumper	Y CE bumper	H	H MAX	
							4 axes	5 axes
Rover C Edge 1948	mm	9891	7010	9891	7040	2000	3370	3040
Rover C Edge 1965	mm	11674	7010	11674	7040	2000	3370	3040

X/Y/Z Axis speed	m/min	85 / 85 / 30
Edgebanding strip thickness	mm	0,4 - 3
Panel thickness for treating the edgebanding strip	mm	10 - 60
Coil availability		2 / 4 / 6

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.

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

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 transitions from the top left to the bottom right.

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

