

Rover C EDGE

NC edgebanding machining centre



 **BIESSE**

When competitiveness
means unlimited
productivity



Made **In** Biesse

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 answers

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

- ▶ **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.**

Shaping and edgebanding without compromises



Rover **C EDGE**
NC edgebanding processing centre



Performance above the industry standard

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

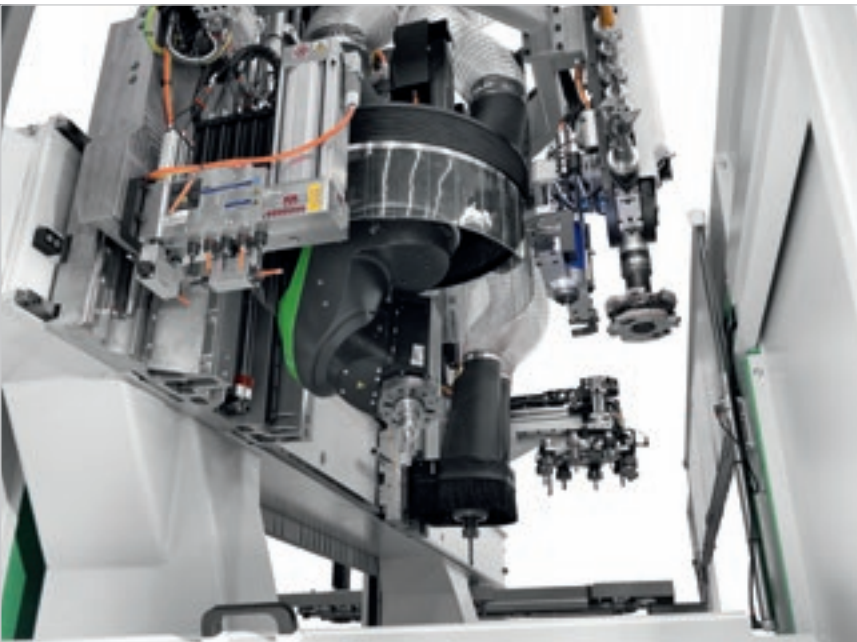


Operating section with 5 interpolating axes (21.5 kW and 8000 rpm), the most powerful on the market, which supports complex processing operations whilst ensuring quality and precision.



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.

Precise power



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.

HIGH TECHNOLOGY

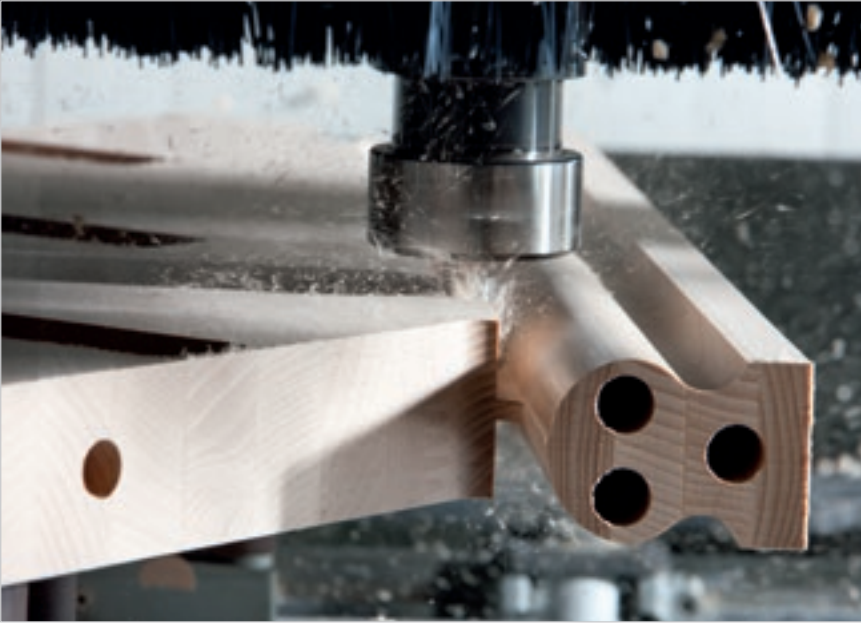
Unique technological solutions to meet productivity and flexibility requirements of the most demanding manufacturers. A perfect combination of innovation and Italian genius.



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.



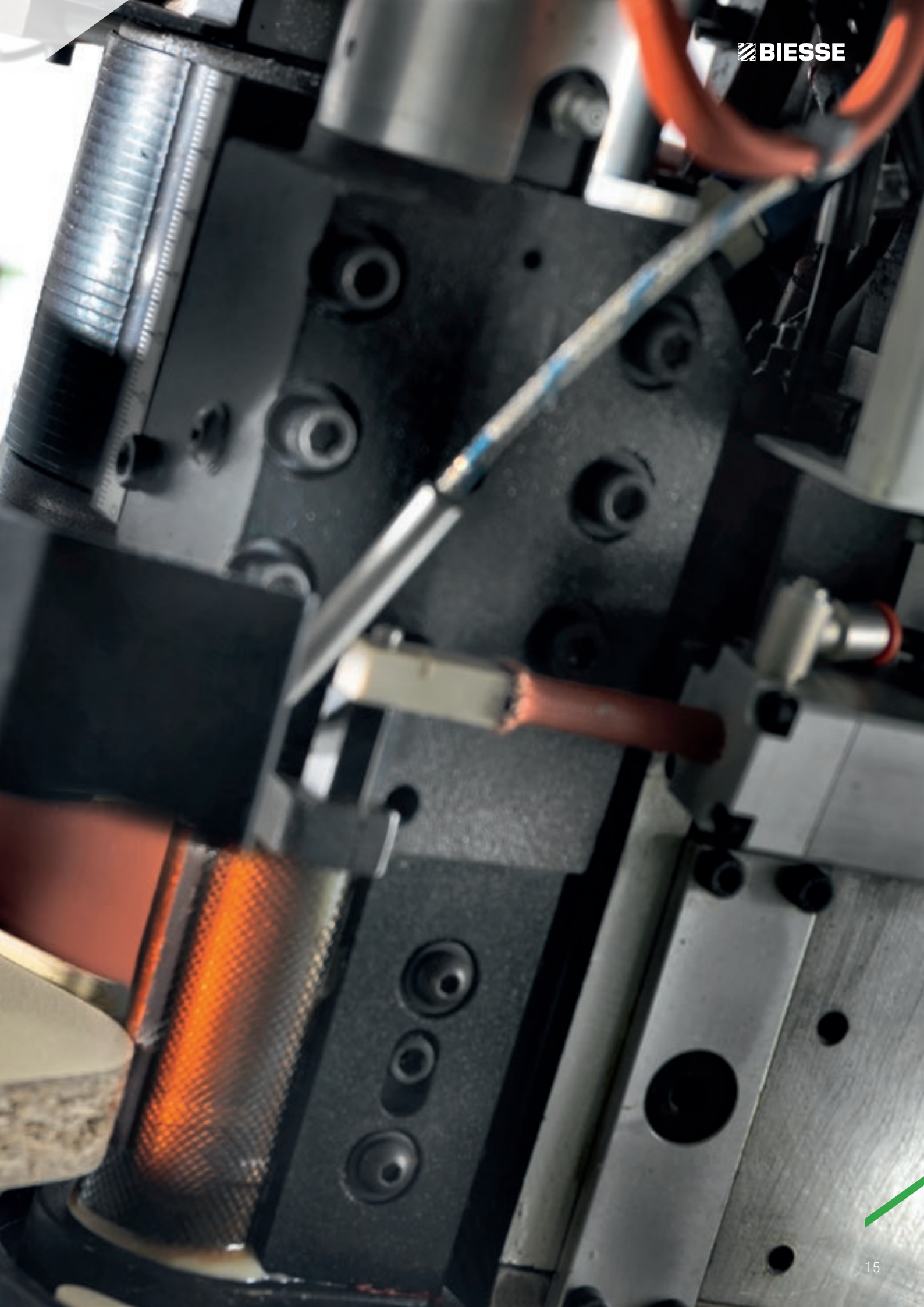
Additional glue pots fitted with quick-release electrical system for PU granule adhesives.

Robust edgebanding

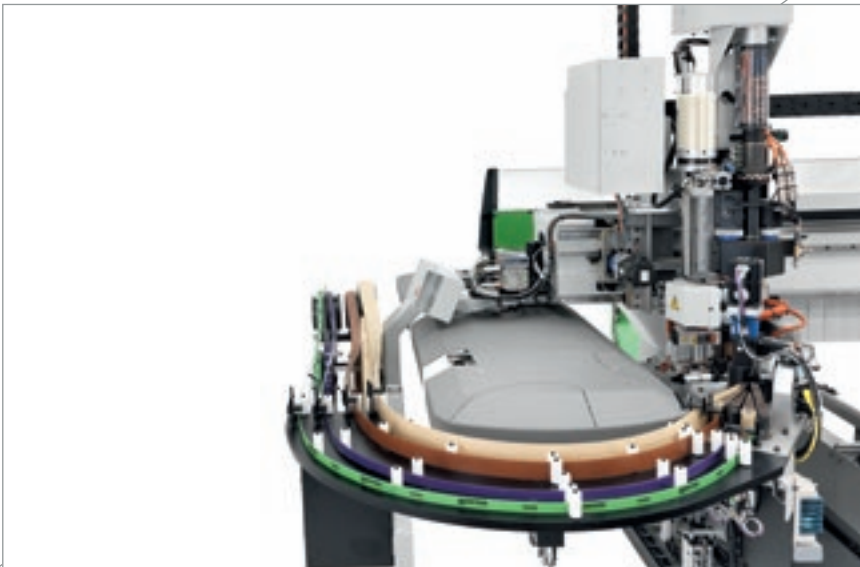
Edgebanding has always been based on applying glue directly to the panel; Biesse has followed this principle and applied it to straight edgebanding as well as shaped edgebanding performed by machining centres.

ROVER EDGE

Maximum bonding, possibility of applying thin edges and 3D transparent edges, easy maintenance and panel cleaning during the machining cycle. A perfect combination of Biesse technology and Italian genius.



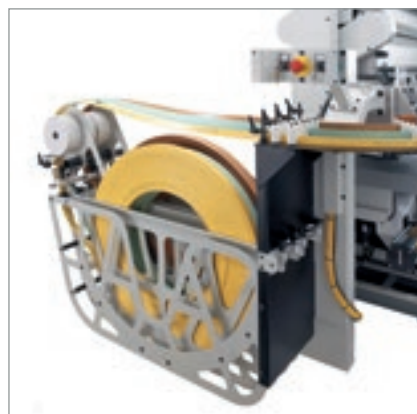
Solutions that increase machine productivity



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.



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.

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



Blower unit.



4-outlet blower unit for edgbanding strip finishing aggregates.

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.

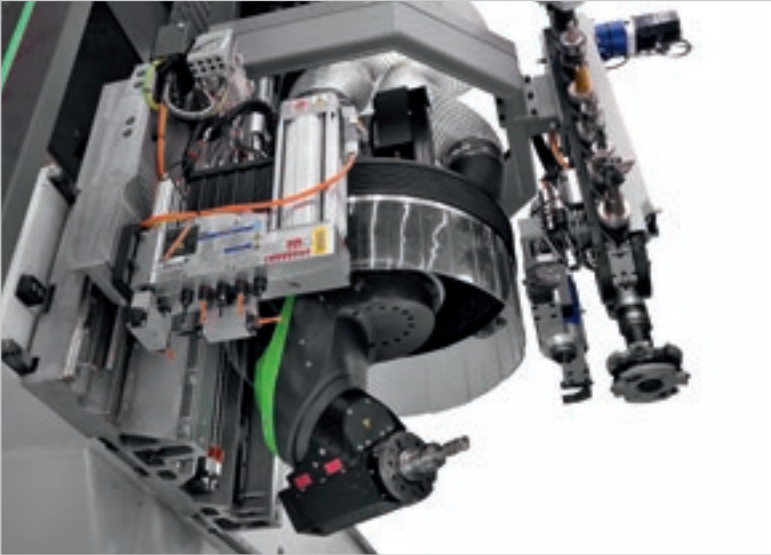


Automated lubrication ensures the continuous lubrication of the machine's main moving parts without the need for operator intervention.



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.



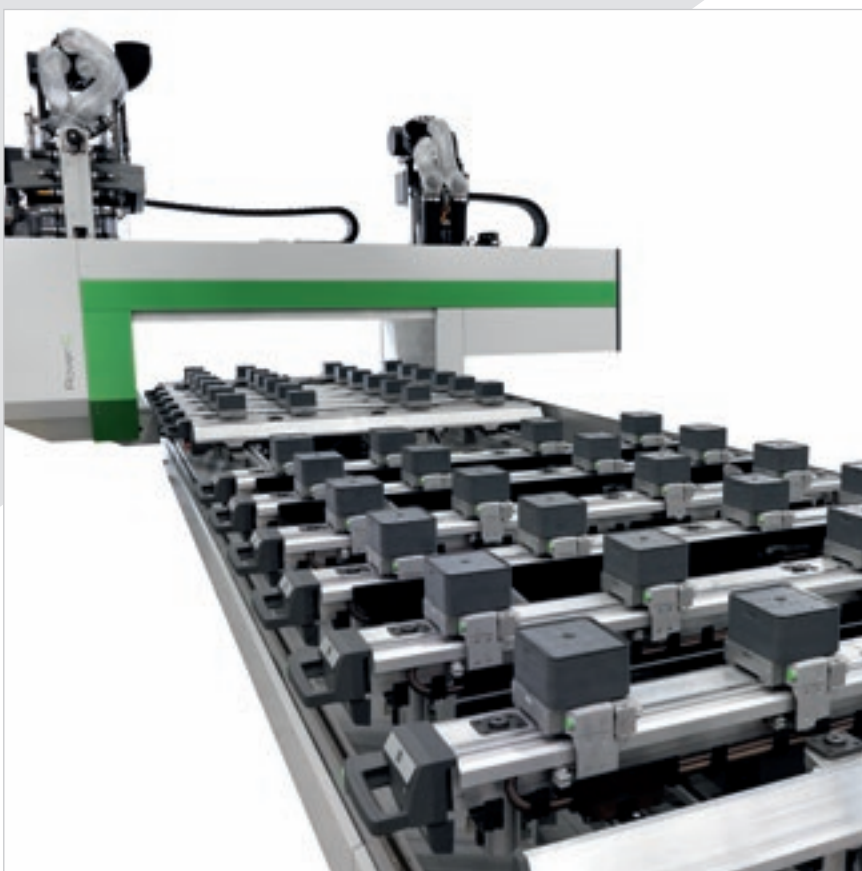
The twin Y carriage allows the 5-axis unit to be used independently of the 4-axis one.



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.



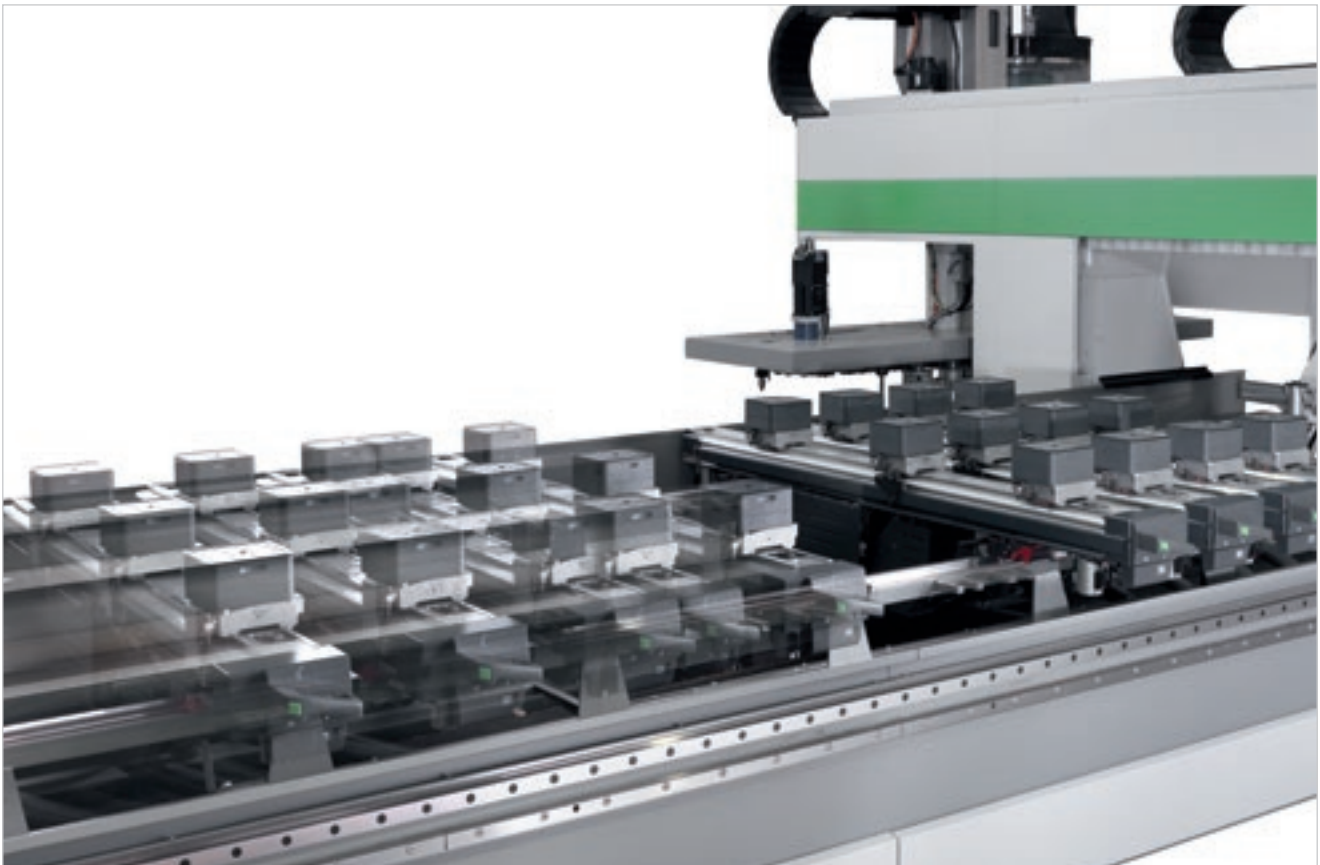
SA (Set Up Assistance)

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 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.



High-tech becomes accessible and intuitive



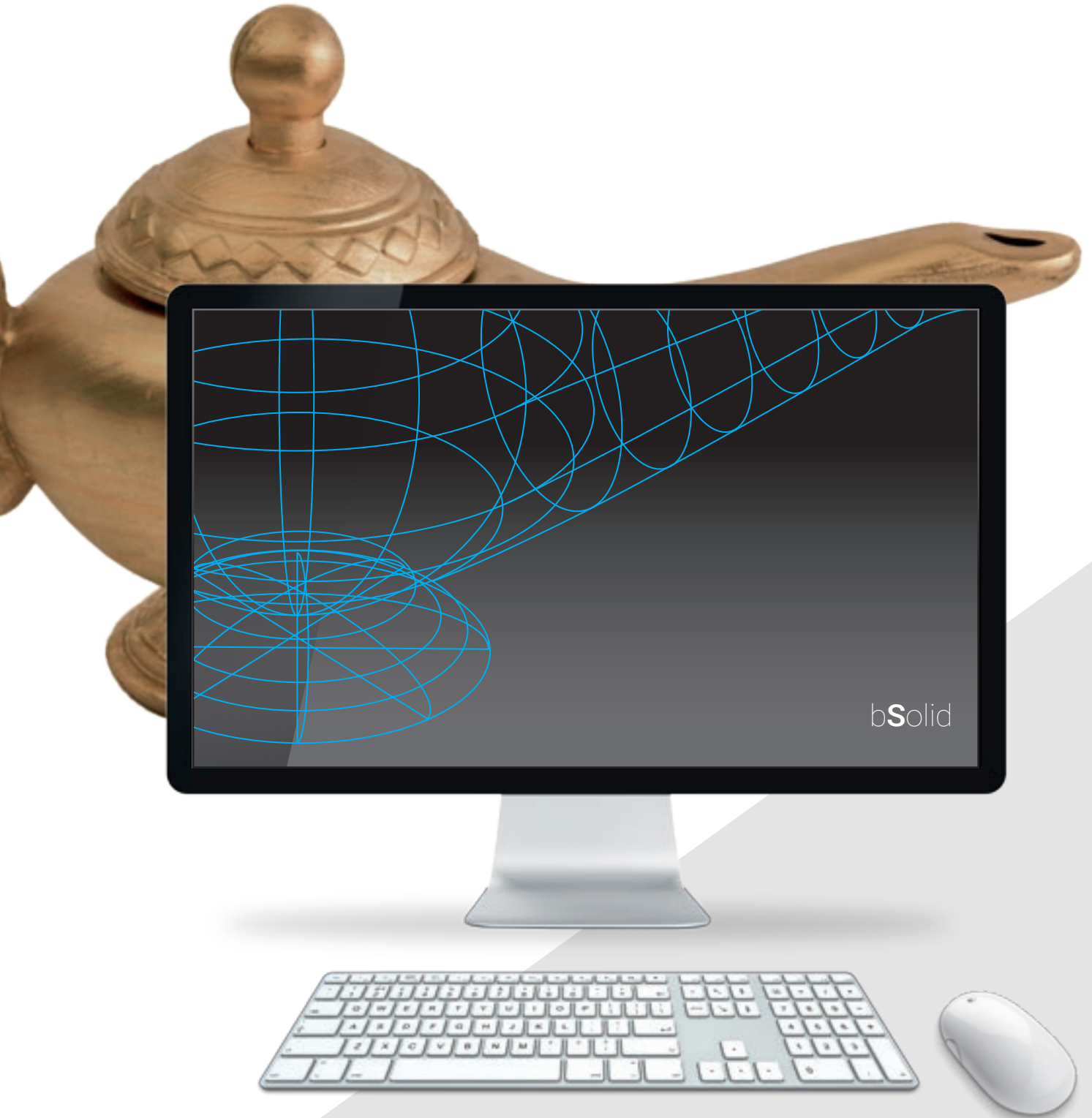
bSolid is a 3D cad cam software program that supports the performance of any machining operation thanks to vertical modules designed for specific manufacturing processes.

- ▶ **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.**

Watch the **bSolid** ad at: youtube.com/biessegroup



bSolid



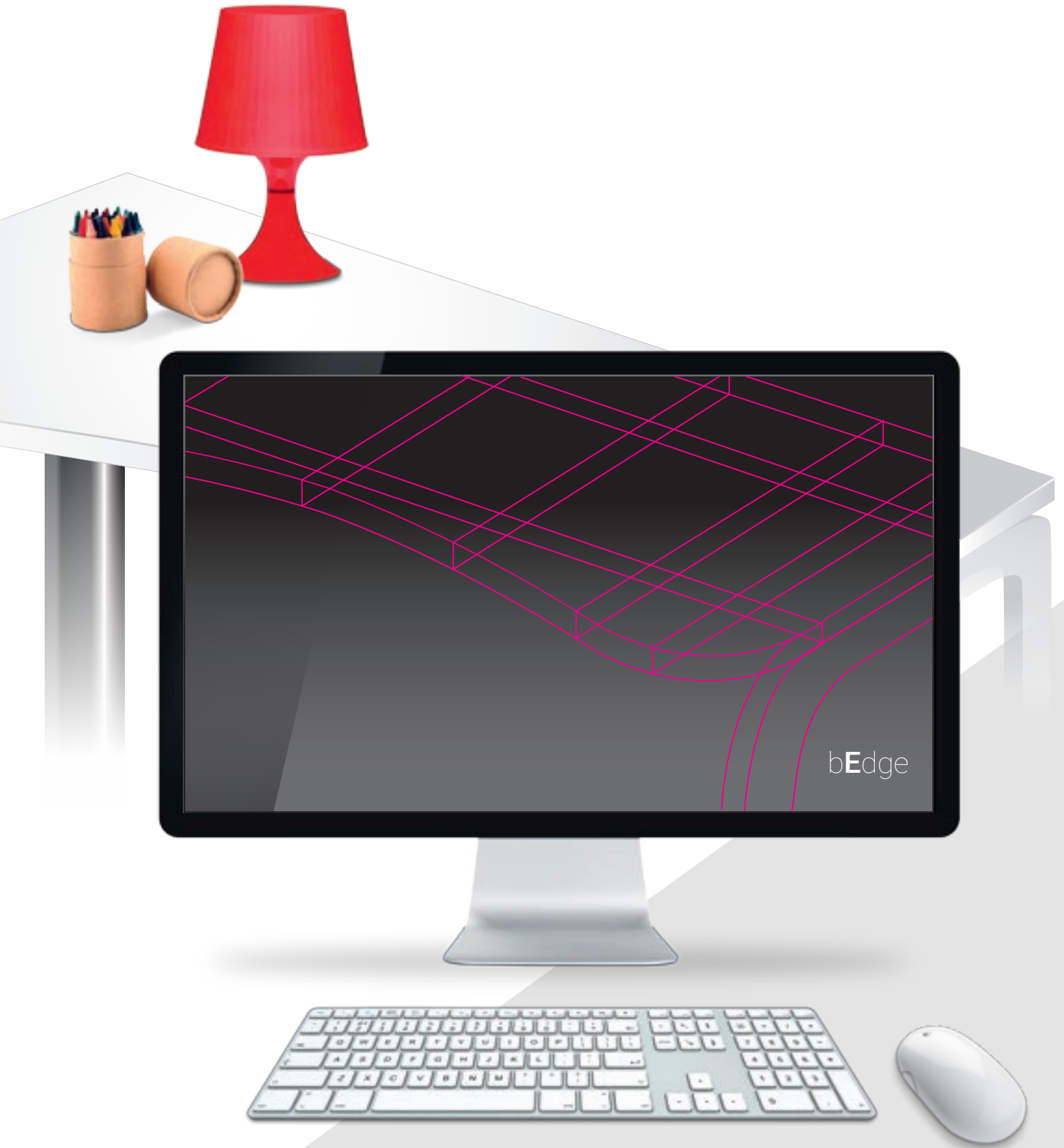
Simplifying edgebanding programming



bEdge is a bSuite plug-in, seamlessly integrated for edgebanding planning. By utilising bSuite's design and simulation capabilities, bEdge makes edgebanding even the most complex shapes, very simple.

- ▶ **Automatic generation of the edgebanding operation sequence.**
- ▶ **Easy to understand and operate.**
- ▶ **Simplified management of edgebanding aggregates.**

bEdge



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.**

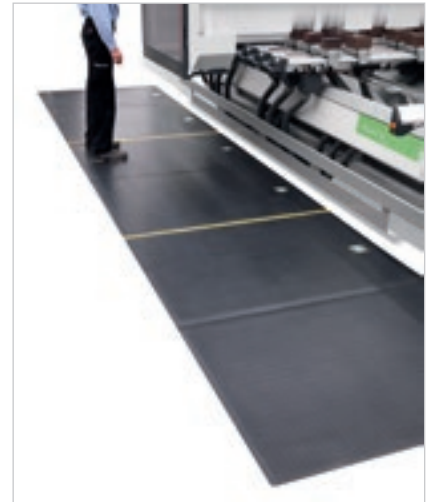
bCabinet



bCabinet

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.

A photograph of three business professionals in a meeting. A man in a dark suit and tie is on the left, looking towards the center. A woman in a light grey blazer is in the middle, with her hands clasped and looking towards the right. A woman with blonde hair is on the right, smiling. The background is a bright, modern office setting with a white wall and a small plant.

Slick and efficient production flow

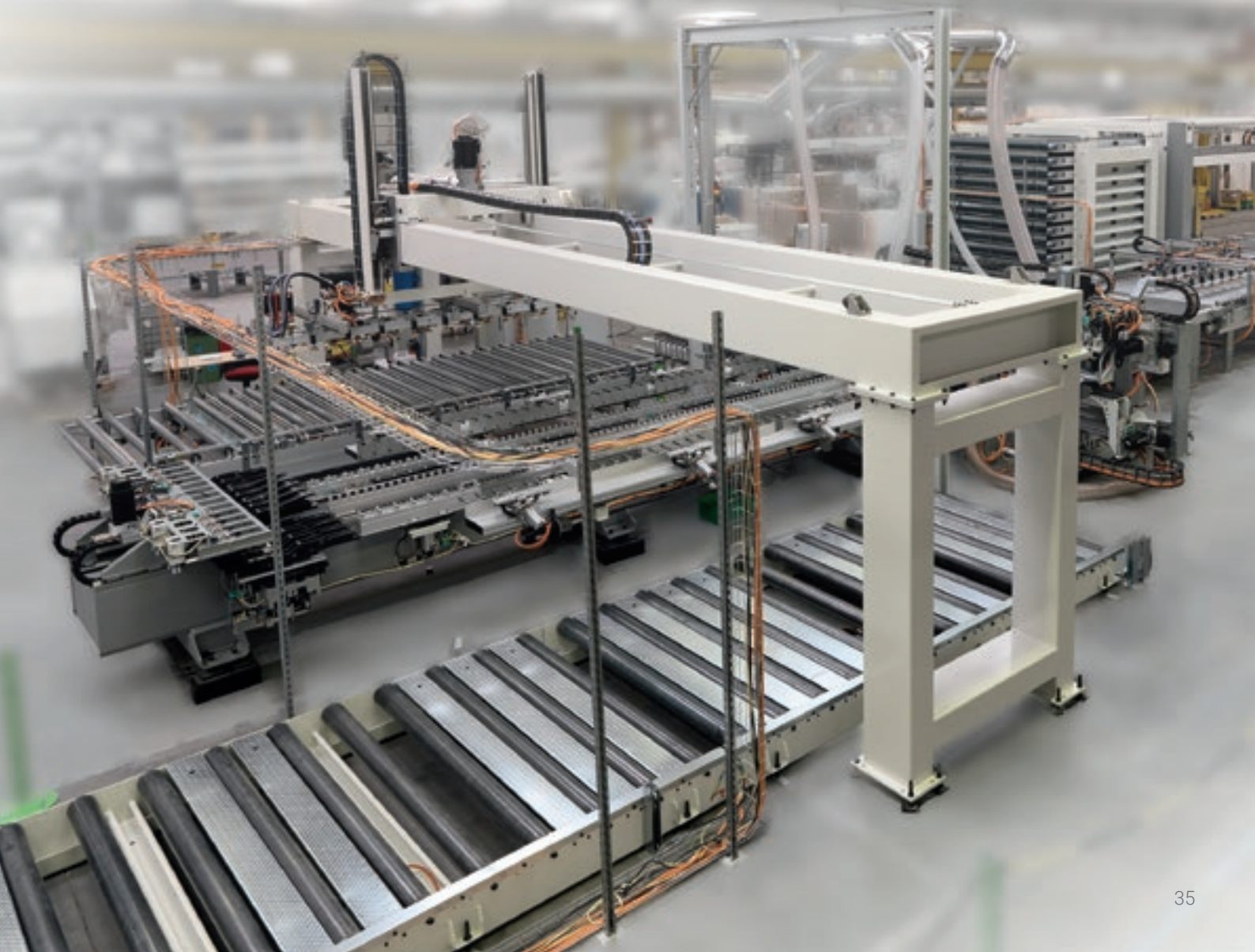
Design of integrated lines
over 100 metres long.

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.**



Service 4.0

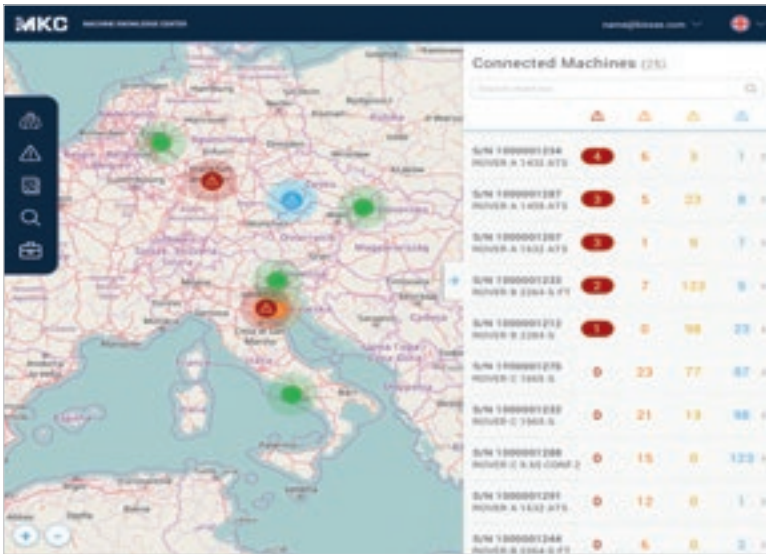
Biesse has developed a wide range of services to enhance machine performance and customer productivity, improving operational efficiency and lowering costs.

Sensors and devices fitted onto machines enable in-depth analyses to be carried out and viewed via control panels for mobile devices.



CNC IoT Biesse Service Pack

- ▶ Priority service and extended coverage.
- ▶ Continuous connection with the Biesse control centre.
- ▶ Direct monitoring of machine performance through a dedicated app.
- ▶ Analysis of machine stoppages, remote diagnostics and fault prevention.
- ▶ On-site functional check and technical inspection within the warranty period.



Machine monitoring screen connected to the Biesse control centre.



Control screen displaying machine details.

The direct connection with Biesse provides a range of significant benefits

- ▶ Optimisation of efficiency and of operating quality.
- ▶ Net reductions in repair times.
- ▶ Better accuracy in predicting machine stoppages.
- ▶ Remote software updates.

60 minutes maximum time taken to deal with an instance of machine stoppage.

80% reduction in the time required for the diagnostics process.

Overall reduction in downtime of **50%**.

Service & 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.


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 specialised 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 customised 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 fulfilment time optimised thanks to a global distribution network with de-localised, automated warehouses.

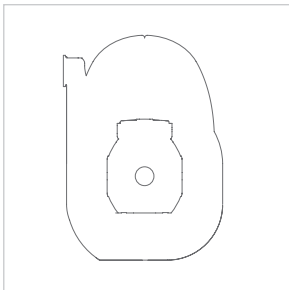
87%  of downtime machine orders fulfilled within 24 hours.

95%  of orders delivered in full on time.

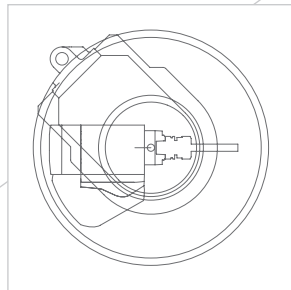
100  spare part staff in Italy and worldwide.

500  orders processed every day.

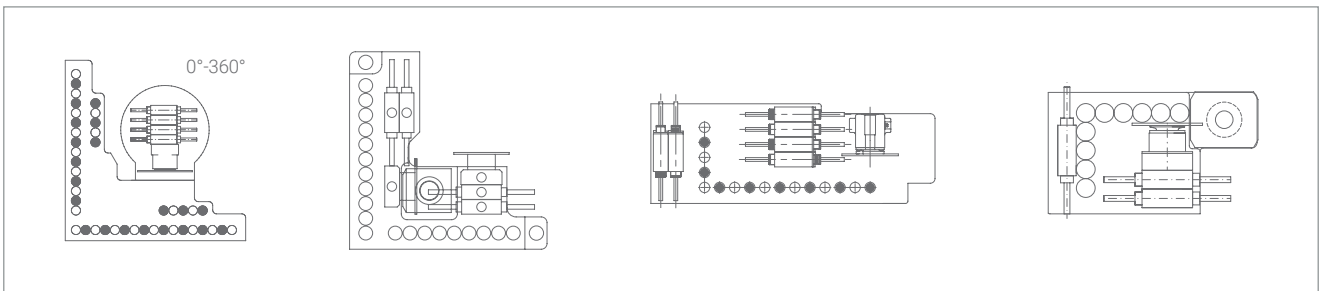
Customisable configurations depending on different production needs



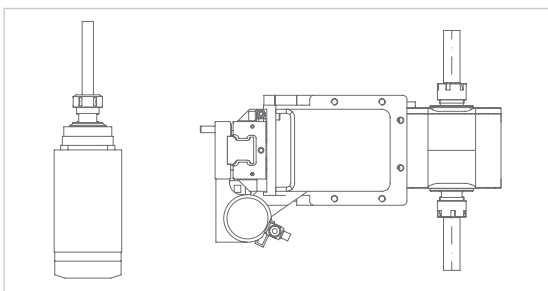
Milling head with air or liquid cooling and power up to 19.2 kW.



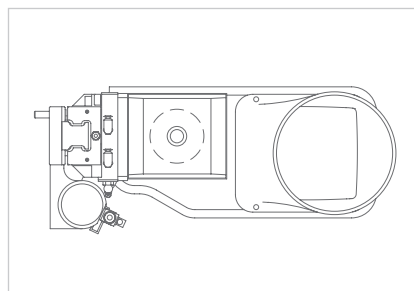
5-axis milling unit with 13 - 16.5 - 21.5 kW power.



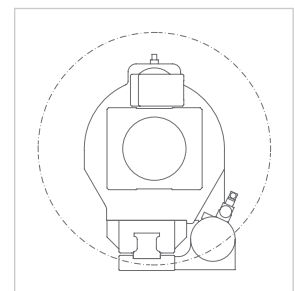
Boring heads available from 17 to 42 spindles:
BHC42/TCH9L - BH30 2L - BH29 - BH17.



1 or 2 outlet horizontal milling units.

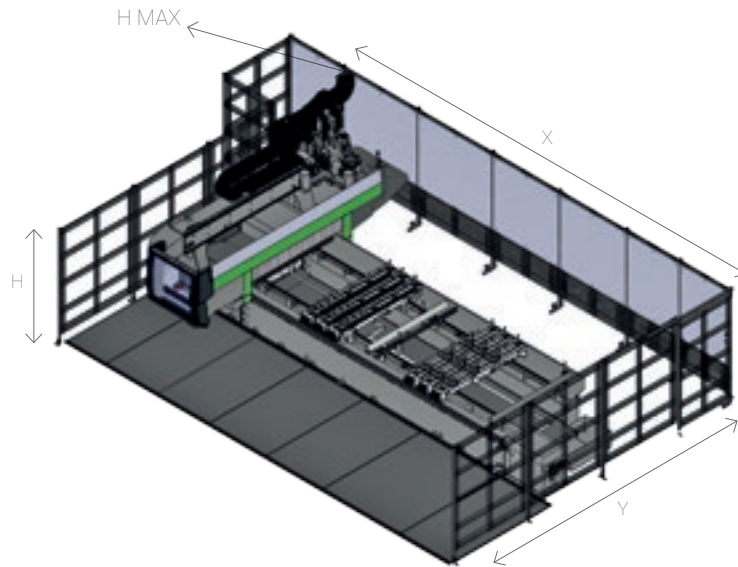


6 kW vertical milling unit.



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 | 9891 | 7010 | 9891 | 7040 | 2000 | 3370 | 3040 |
| ROVER C Edge 1965 | 11674 | 7010 | 11674 | 7040 | 2000 | 3370 | 3040 |

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

In / 1 industrial group, 4 divisions
and 9 production sites.

How / € 14 million p/a in R&D
and 200 patents registered.

Where / 37 branches and 300
agents/selected dealers.

With / Customers in 120 countries (manufacturers of furniture,
design items and door/window frames, producers of ele-
ments for the building, nautical and aerospace industries).

We / 3,800 employees throughout the world.

Biesse Group is a multinational leader in the technology for processing wood, glass, stone, plastic and metal.

Founded in Pesaro in 1969, by Giancarlo Selci, the company has been listed on the STAR sector of Borsa Italiana since June 2001 and is currently a constituent of the FTSE IT Mid Cap index.

 **BIESSEGROUP**

 **BIESSE**

 **INTERMAC**

 **DIAMUT**

MECHATRONICS

