

# Rover c

NC processing centre



When competitiveness  
means producing  
without  
limits



Made **In** Biesse

## The market demands

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

## Biesse meets these requirements

with technological solutions that highlight and support technical expertise as well as process and material knowledge. **Rover C** is the new processing centre for manufacturing furniture, staircase and door and window components of any shape, size and thickness with ease.

It was designed to be used for heavy-duty processing that requires large-size tools and aggregates.

- ▶ **Performance above the industry standard.**
- ▶ **More machining operation options.**
- ▶ **Perfect execution of machining operations.**
- ▶ **Cycle-time reduction for high productivity.**
- ▶ **High-tech becomes accessible and intuitive.**

Power meets  
precision



Rover C  
NC processing centre



# Performance above the industry standard

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

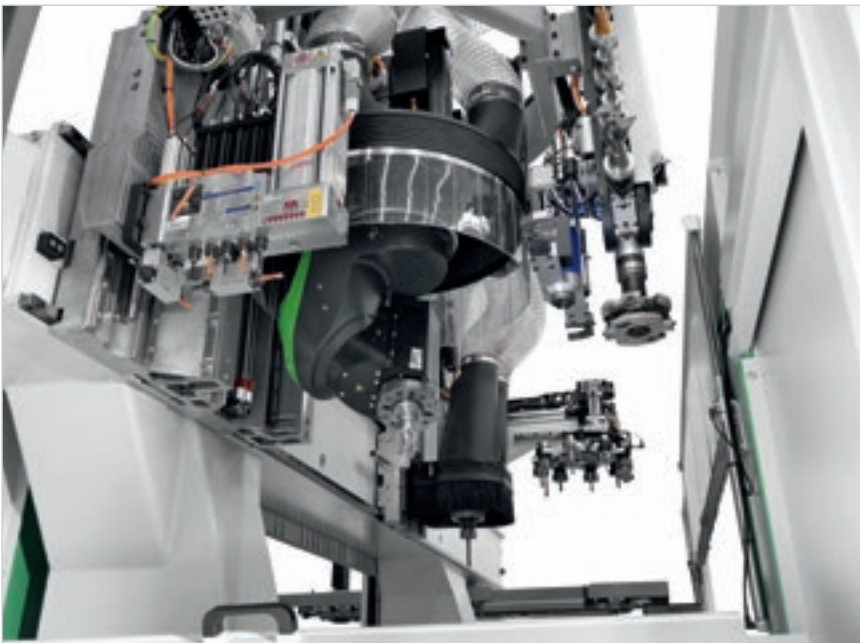


Operating section with 5 interpolating axes (21.5 kW and 8000 rpm), the most powerful on the market, which supports complex processing operations whilst ensuring quality and precision.



The solutions developed for Rover C 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/sec<sup>2</sup> 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

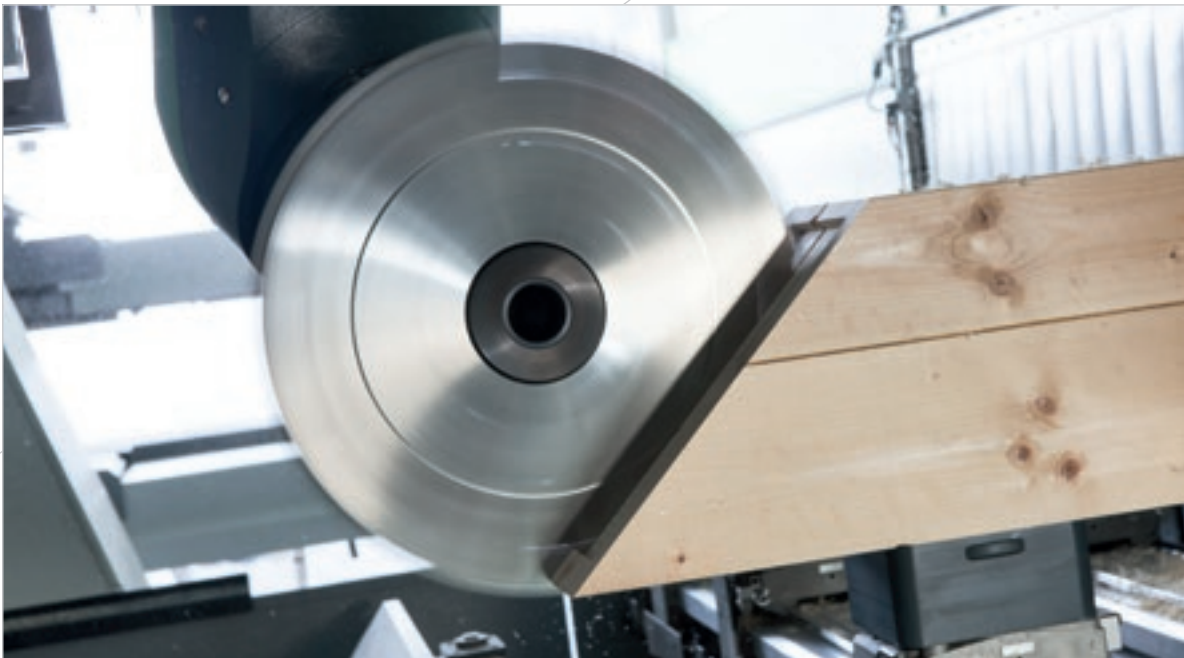
Unique technological solutions to meet productivity and flexibility requirements of the most demanding manufacturers. A perfect combination of innovation and Italian genius.

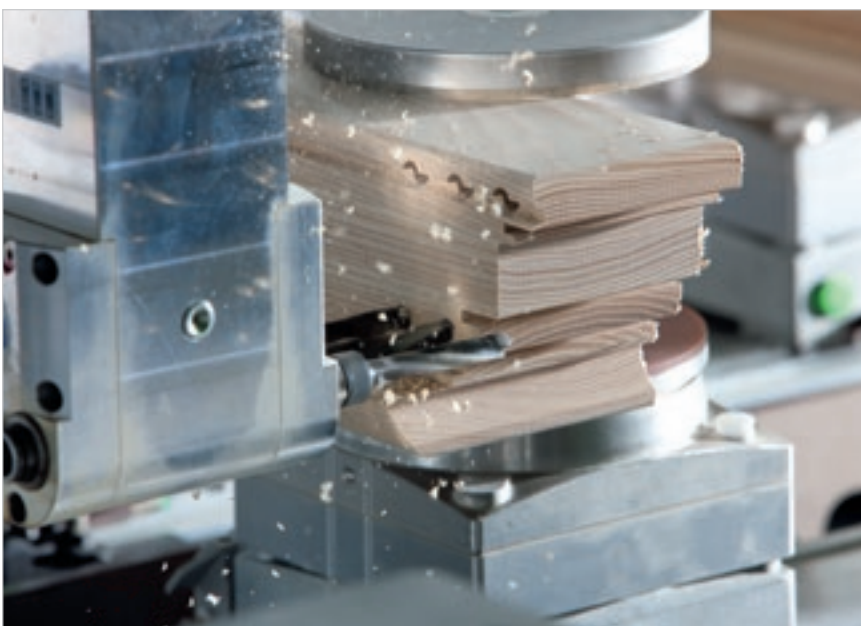




# More machining operation options

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





# Full processing of large panels

The rigid structure of the machine and the width of the Y axis allows users to machine panel widths of up to 1930 mm with all available tools.



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

Rover C 1636  
Rover C 1648  
Rover C 1665  
Rover C 1682  
Rover C 1936  
Rover C 1948  
Rover C 1965  
Rover C 1982



Two machines in one: the full functionality and quality of a true pantograph table is guaranteed by the **CFT (Convertible Flat Table)**, which supports the machining of thin panels, nesting and folding on a machine equipped with a roller bar table.

# Perfect execution of machining operations

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



**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.

# Practical design

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.

## BIESSE IDENTITY

An innovative yet simple design is the hallmark of Biesse's distinctive identity. The perfect combination of Italian genius and taste.

ROVER

# Cycle-time reduction for high productivity

Zero tool change set-up time thanks to new tool change solutions that make over 100 tools always available on the machine.



**Double tool magazine** on the X tool carriage with 44-66 positions which guarantee quick tool change and reduced processing times. It can accommodate a saw blade with a diameter of up to 400mm.



**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.



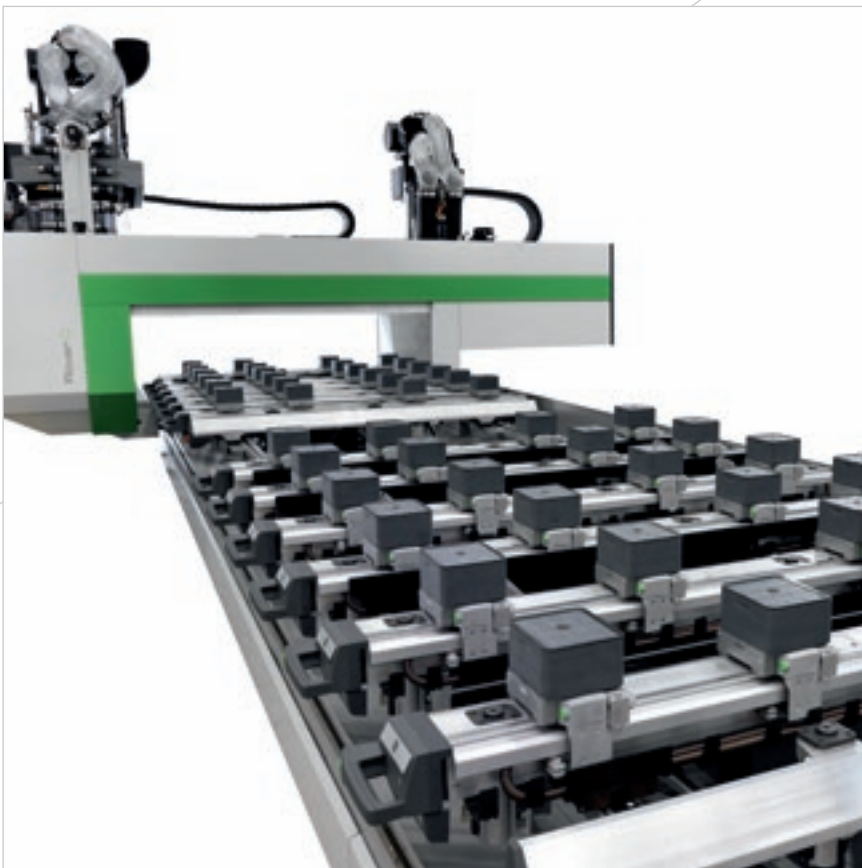
**Facilitated access** during tool change operations thanks to the openable front hood.



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

# 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.



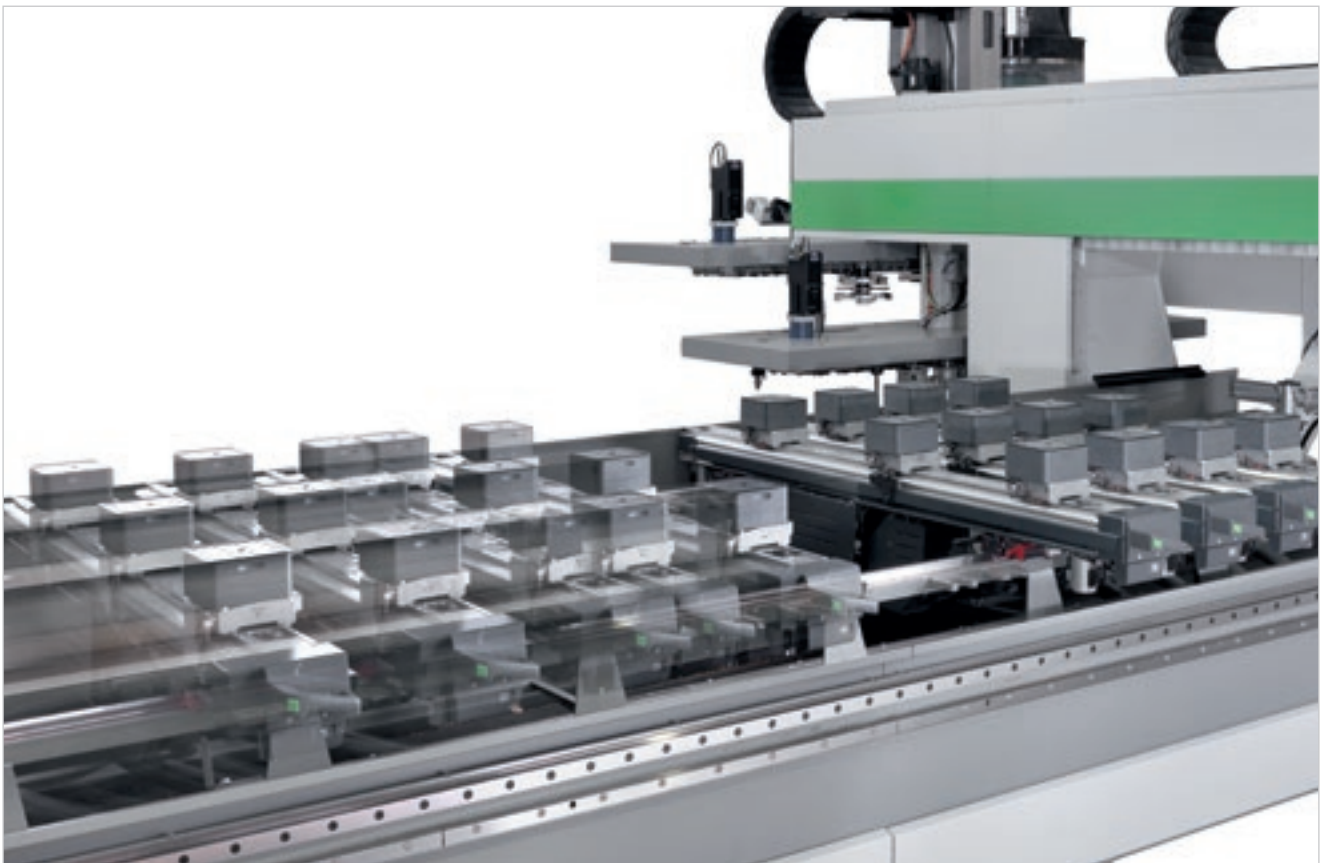
**SA (Set Up Assistance)**

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



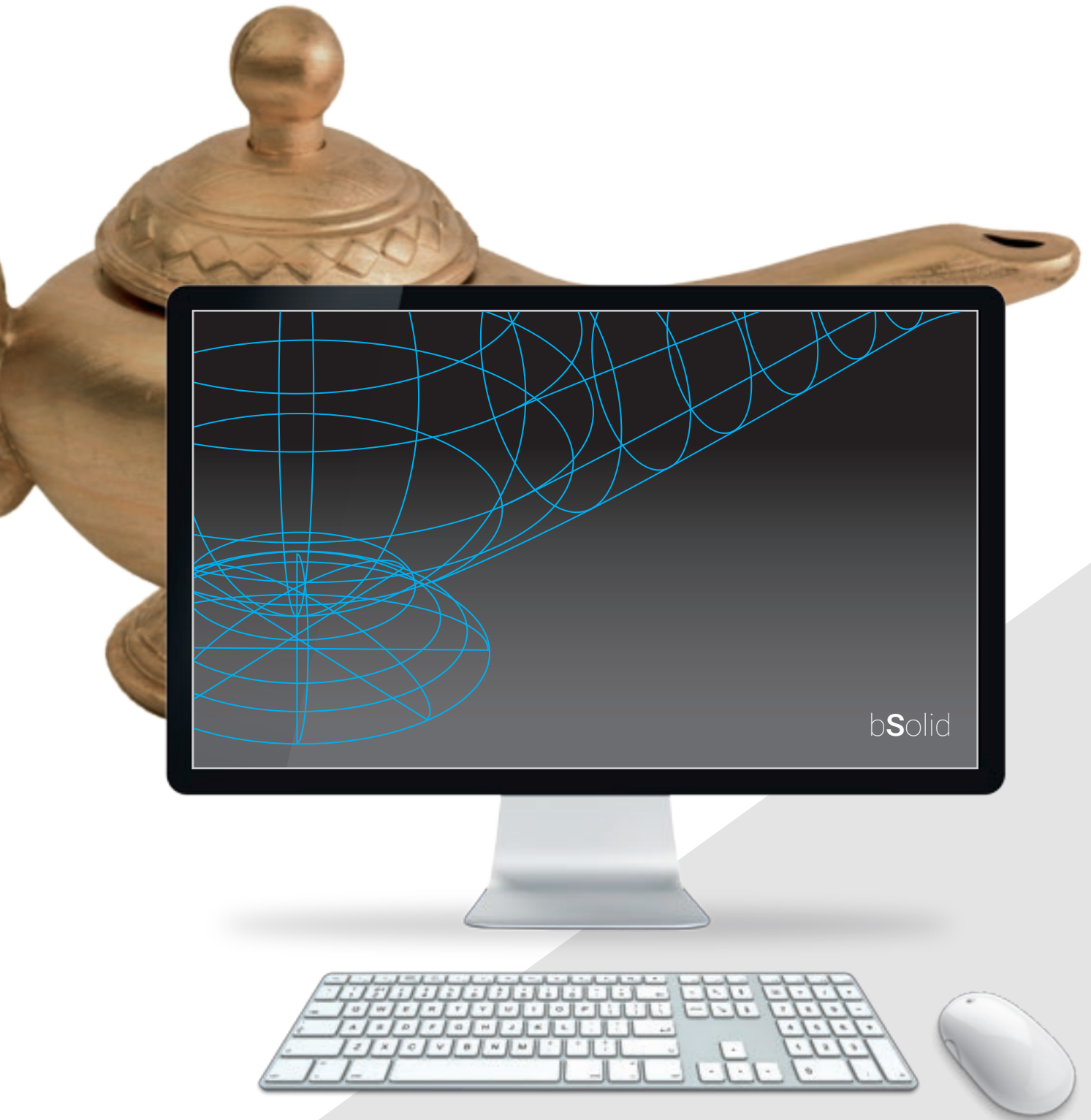
**bSolid** is a 3D cad cam software program that supports the performance of any machining operation thanks to vertical modules designed for specific manufacturing processes.

- ▶ **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](https://youtube.com/biessegroup)



# bSolid



# Maximum design freedom



**bWindows** is a seamlessly integrated plug-in for the planning of windows/door frames. By exploiting bSuite's planning functionality, bWindows provides unparalleled capabilities.

- ▶ **Creation of window/door frames even with extremely complex designs.**
- ▶ **Ability to visualise all components and composition of the products to be manufactured.**
- ▶ **Precise calculation of the timing of job lists generated by an entire order.**



# bWindows

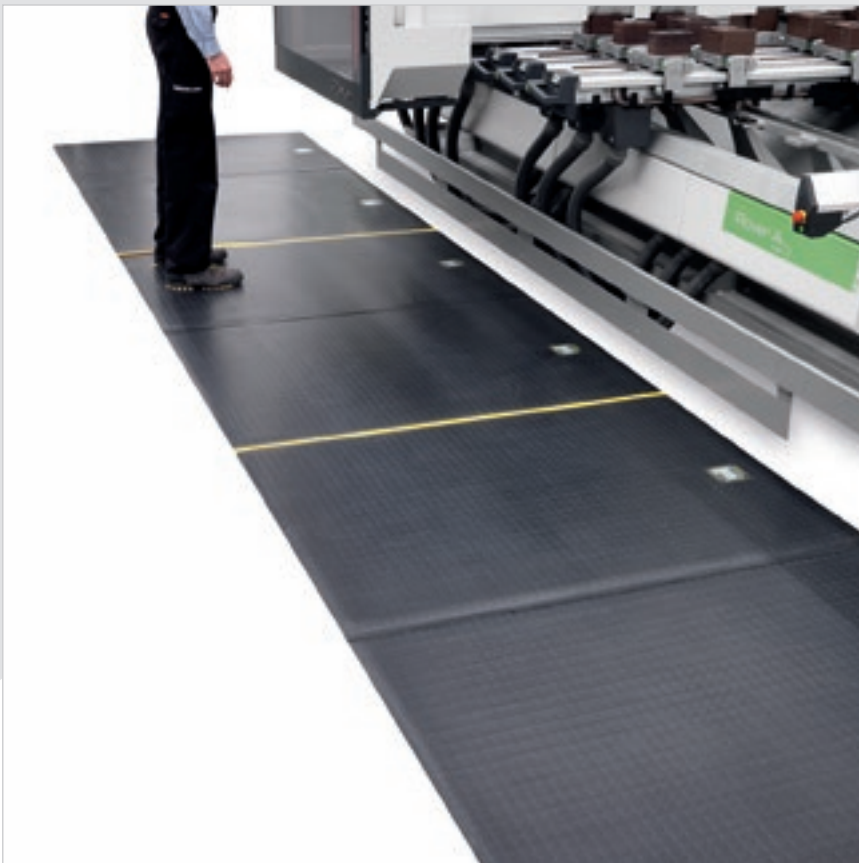


bWindows

# Maximum operator safety

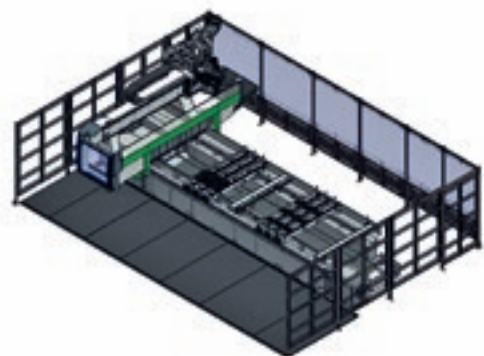


**Pressure-sensitive floor mats** enable the machine to operate at constant maximum speed.



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

Perimeter guards with front access door.







**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.



# 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

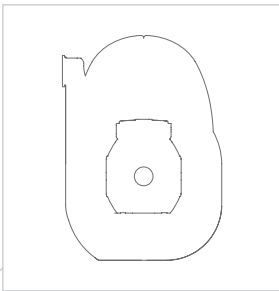


Industry 4.0 is the new industry frontier, based on digital technologies and on machines that speak to companies. The products driving this revolution can communicate and interact independently within production processes, which in turn are connected via intelligent networks.

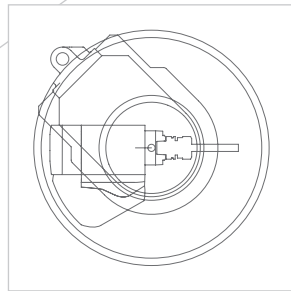


Biesse is dedicated to transforming the factories owned by our customers into real-time factories that are ready to provide digital manufacturing opportunities. Intelligent machines and software become indispensable tools that facilitate the daily work of those who machine wood and other materials on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

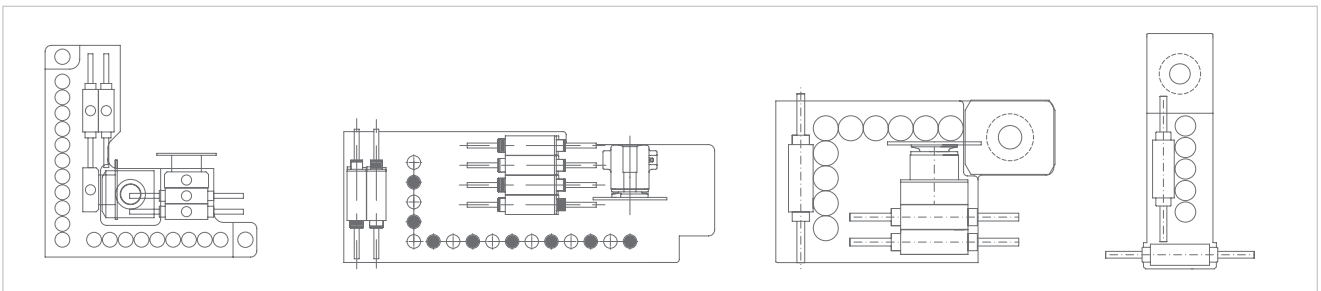
# Customisable configurations depending on different production needs



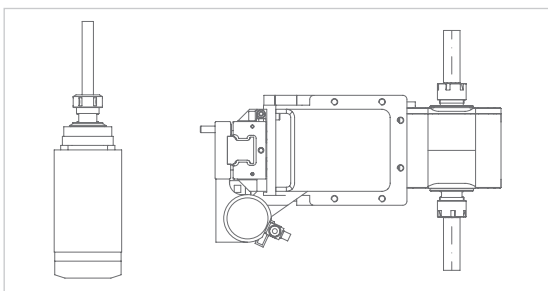
Milling head with air or liquid cooling and power up to 19.2 kW.



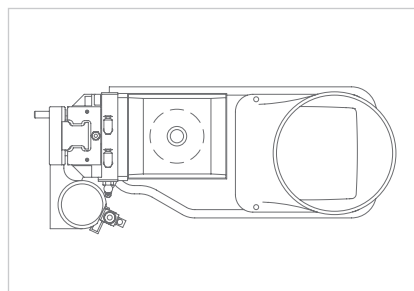
5-axis milling unit with 13 - 16.5 - 21.5 kW power.



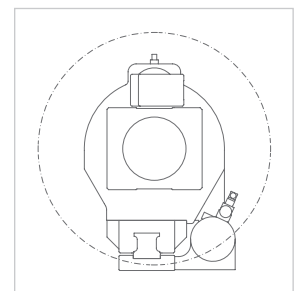
Boring heads from 9 to 30 tools: BH30 2L - BH29 - BH17 - BH9.



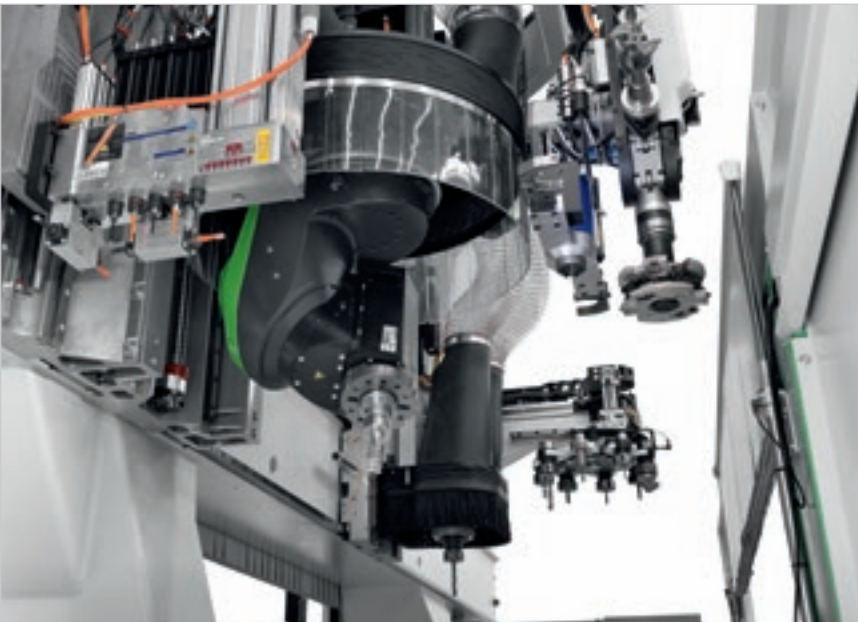
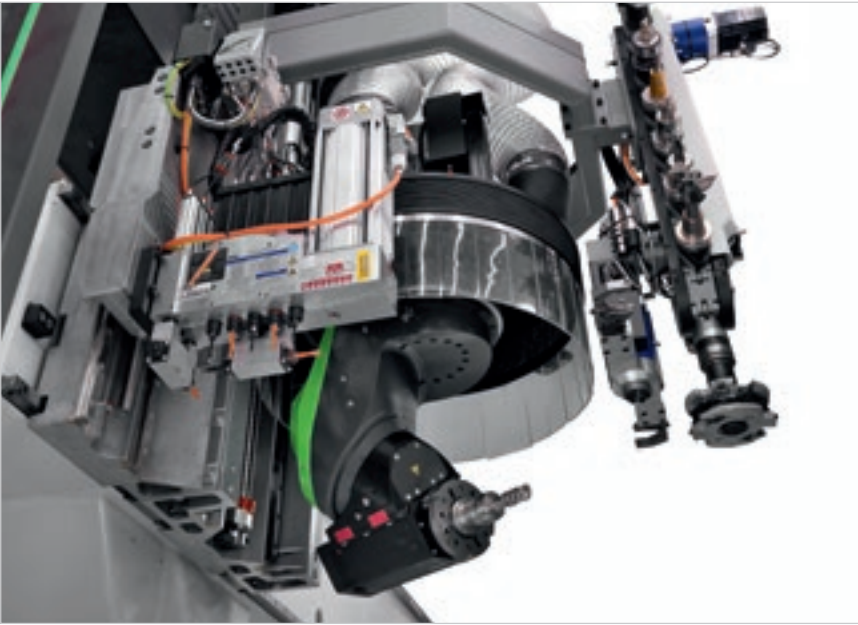
1 or 2 outlet horizontal milling units.



6 kW vertical milling unit.



Multi-function, with 360° rotation.



# Exceptional finish quality

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.



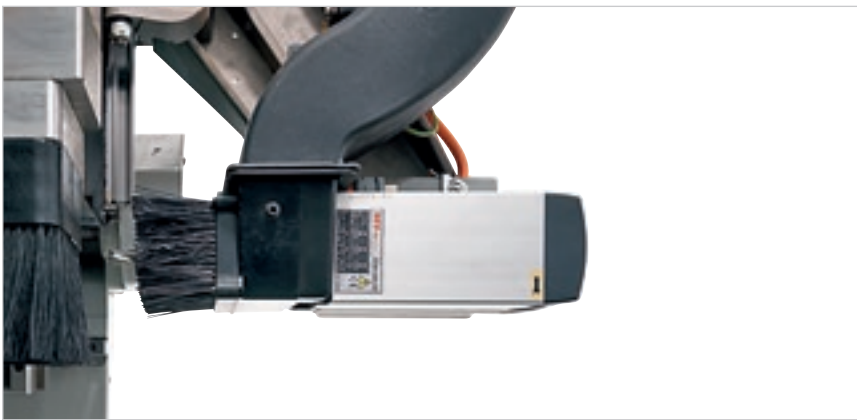
The NC controlled **multi-function unit** can be infinitely positioned on a 360 (degree) rotation. It can also be used to house aggregates for specific machining operations such as pocketing for locks, hinges, deep horizontal holes and edge-trimming.



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



**Horizontal motor with one or two outlets** for the routing of locks and horizontal machining operations.



# A complete range of aggregates



# Optimal cleaning of machined components and work area



**Motorised conveyor belt** for the removal of chips and waste.



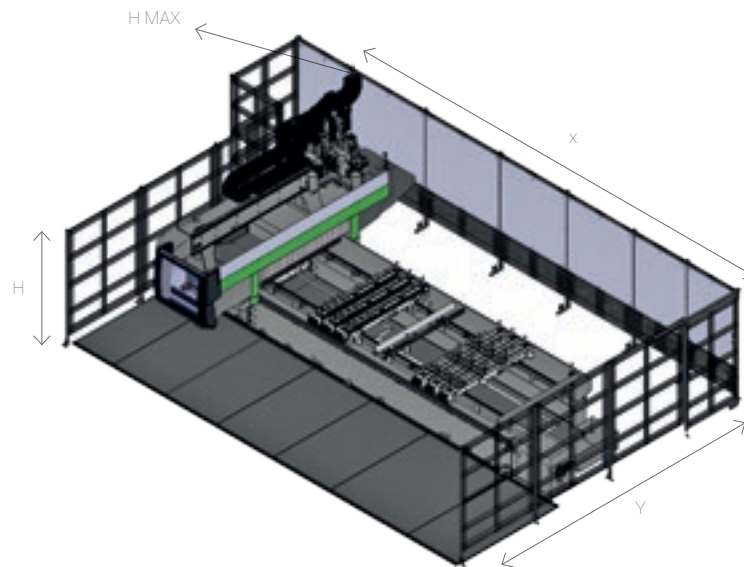
NC controlled chip **deflector**.



6-position (for 4 axes) and 13-position (for 5-axes) adjustable **suction hood**.



# Technical specifications



## Working fields

	X	Y	Z
ROVER C 1636	3625	1650	400
ROVER C 1648	4825	1650	400
ROVER C 1665	6505	1650	400
ROVER C 1682	8125	1650	400
ROVER C 1936	3625	1950	400
ROVER C 1948	4825	1950	400
ROVER C 1965	6505	1950	400
ROVER C 1982	8125	1950	400

## Working dimensions

	X CE mats	Y CE mats	X CE Bumper	Y CE Bumper	H	H MAX	
						5 axes	4 axes
ROVER C 1636	8121	6547	8361	6530	2000	3370	3040
ROVER C 1648	9334	6547	9574	6530	2000	3370	3040
ROVER C 1665	11027	6547	11267	6530	2000	3370	3040
ROVER C 1682	12720	6547	12930	6530	2000	3370	3040
ROVER C 1936	8121	6567	8361	6530	2000	3370	3040
ROVER C 1948	9334	6567	9574	6530	2000	3370	3040
ROVER C 1965	11027	6567	11267	6530	2000	3370	3040
ROVER C 1982	12720	6567	12930	6530	2000	3370	3040

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.

# Service 4.0

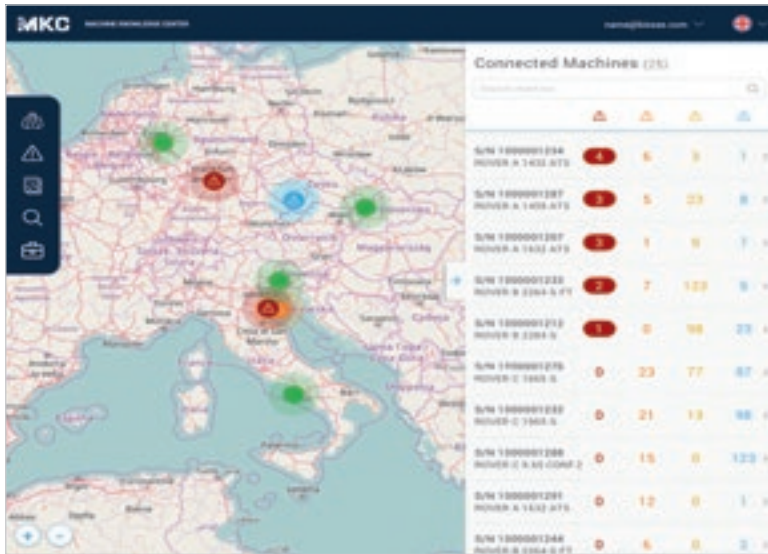
Biesse has developed a wide range of services to enhance machine performance and customer productivity, improving operational efficiency and lowering costs.

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.

# Made **With** Biesse

## **Biesse technology accompanies the growth of Stechert**

"On these chairs sits the world" is the motto of the Stechert Group that can effectively be taken literally. What began 60 years ago as a small manufacturing company for pram mouldings, furniture doors and door locks is today one of the largest international suppliers of contract and office chairs, as well as tubular steel furniture. Moreover, since 2011 the company has a partnership with WRK GmbH, an international specialist in podiums, conference room and grandstand seating, associated with Stechert via the joint commercial company STW. For Stechert management, however, the excellent results obtained are no excuse for resting on their laurels. On the contrary, the company is investing heavily in the Trautskirchen site to make its production even more efficient and profitable. In the search for a new machinery partner, the company's management chose the Italian manufacturer Biesse. "For the project we chose machines that already had certain options and were predisposed for automation", said Roland Palm, Biesse Area Manager.

An efficient production cycle was created in which workers are able to perform at their best after only a short training period.

At the start of the production line is the panel saw "WNT 710" with one cutting line. "Because", explained skilled cabinet maker Martin Rauscher, "we want to be able to work panels of up to 5.90 metres in order to reduce waste as much as possible." Normal rectangular panels for tables or wall panels are taken directly to the "Stream" edgebander with "AirForceSystem" technology. The Biesse edgebander has a group that activates the laminated edging material no longer via a laser beam but using hot air to obtain the so-called "zero gap". "The quality is just as good as the laser system, if not even better: with a connection power of 7.5 kW, the cost per square metre is much lower", underlined the Biesse Area Manager.

"We want to be ready for when we mould the frame ourselves and we must therefore calibrate the panels" said Martin Rauscher, "The same is true of course

for solid wood and multiplex panels, which require grinding before being painted in an external company. For both types of work a Biesse "S1" sander is used. In order to meet the needs of the future, in the Trautskirchen plant there are also two Biesse numerically controlled machining centres: a "Rover C 965 Edge" and a "Rover A 1332 R", which are perfectly complementary.

The Stechert Group also intends to strengthen sales of innovative solutions for interior fittings, with complete systems for walls, ceilings, floors and mezzanines. For panel sectioning, the Group has purchased a "Sektor 470". For other geometry, groove and spring machining as well as boring and surface milling, there are two Biesse machining centres, an "Arrow" for nesting applications, a "Rover B 440" and more recently a 5-axis machine, the "Rover C 940 R" machining centre in order to be able to produce, in particular, wall and ceiling panels machined in 3 dimensions.

*Source: HK 2/2014*



<http://www.stechert.de>

# 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**

