

# Rover B FT

NC processing centre



 **BIESSE**

# When competitiveness means reducing waste



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 whilst offering product customisation with quick and clearly-defined delivery times.

## Biesse responds

with **high-tech, innovative solutions** for nesting operations. **Rover B FT** is the new NC processing centre with gantry structure and FT work table not only for the nesting of panels, small doors, furniture components and frames for sofas, but also for Plexiglass, plastic, Alucobond, aluminium and acrylics.

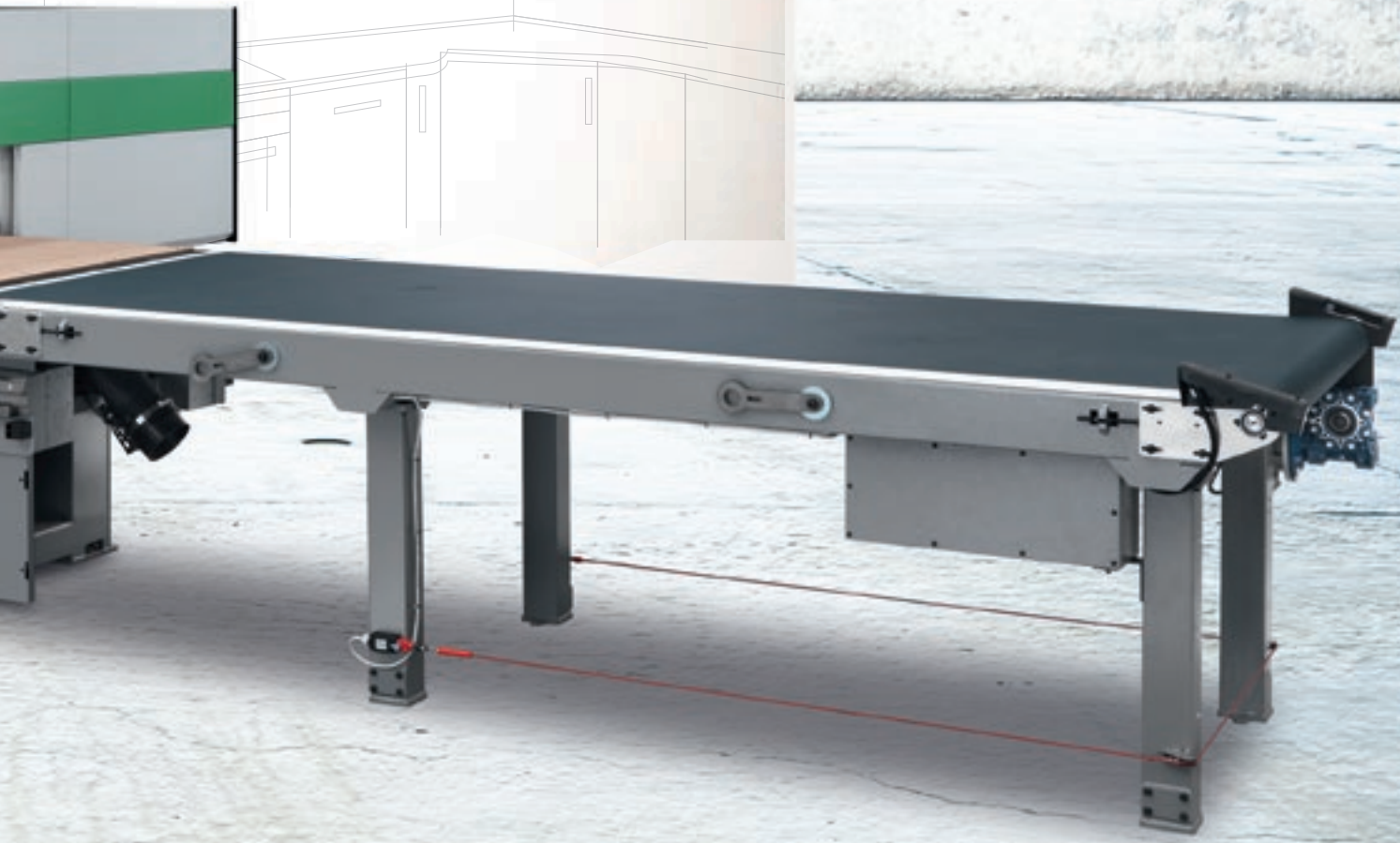
- ▶ **Can be fully integrated into a working cell.**
- ▶ **Increase of manufacturing capacity.**
- ▶ **Flexibility to handle both large and small panels of varying thickness.**
- ▶ **Optimised cleaning of machined component and work area.**
- ▶ **High-tech becomes accessible and intuitive.**

Higher productivity with  
reduced timescales  
and costs



Rover **B FT**  
NC processing centre





# Machine customisation provides the flexibility to cope with all manufacturing needs

**The large number of sizes available enables operators to process all standard panel dimensions required for nesting.**

Available sizes:

Rover B FT 1224  
Rover B FT 1536  
Rover B FT 1564  
Rover B FT 1836  
Rover B FT 2231  
Rover B FT 2243  
Rover B FT 2264



The modularity of the design allows Biesse to deliver machines with configurations which are customised to meet the requirements of individual customers.





Biesse uses the same high-tech components for all machines in its product range.



New **C Torque axis**: more precise, quicker, greater rigidity.



The customer can choose from a vast range of electro-spindles, boring heads and aggregates designed and produced by HSD, the leader in this sector.



The new **BHC32- BHC42 boring head** can hold up to 42 independent tools for single and multiple boring on the upper surface of the panel. With automatic lubrication and a hood for suction removal of chips, automatically activated when the operating unit is in operation.



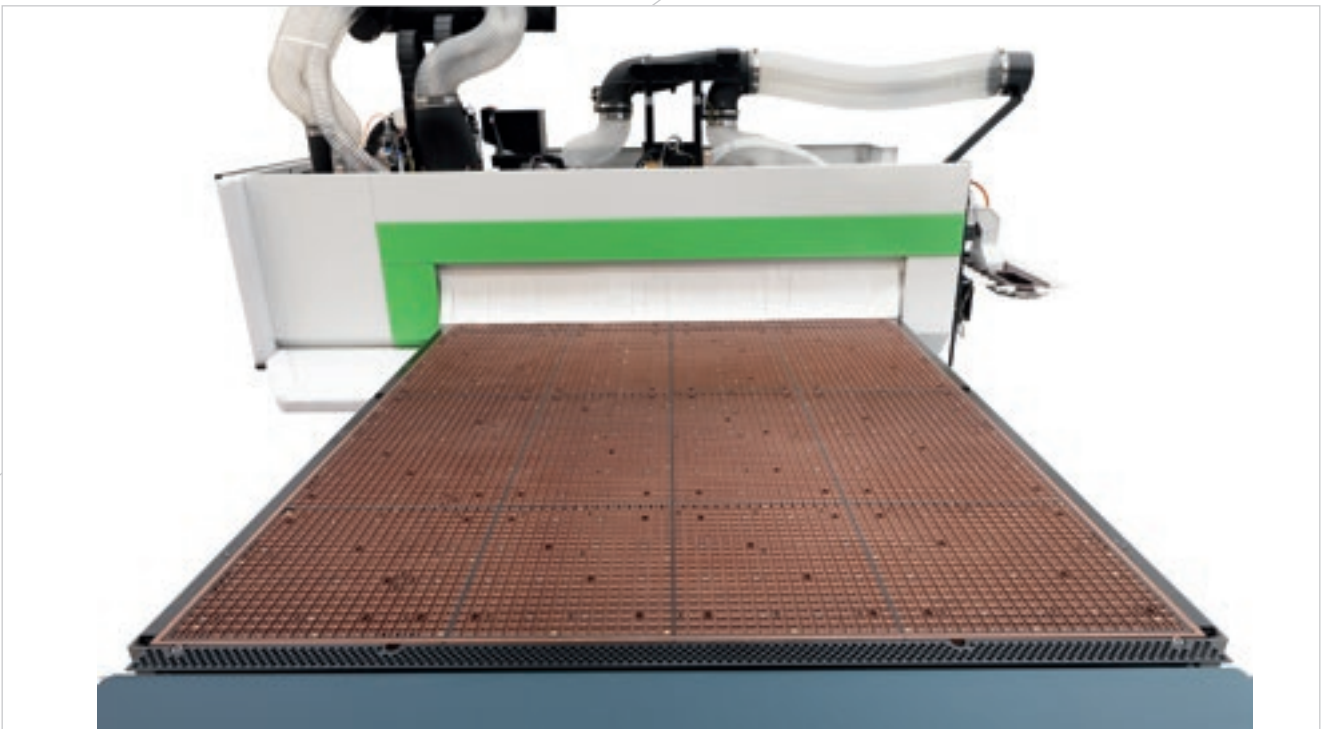
Reduction of tool change set-up time and the possibility of operator error, thanks to the **contact pre-setter**, which automatically determines the length of the tool.



8 to 29 tools and aggregates available in the tool changer, which are loaded automatically when switching from one machining operation to the next.

# High precision and reliability over time

Rover B FT has a robust and well-balanced structure, designed to handle demanding machining requirements without compromising product quality.

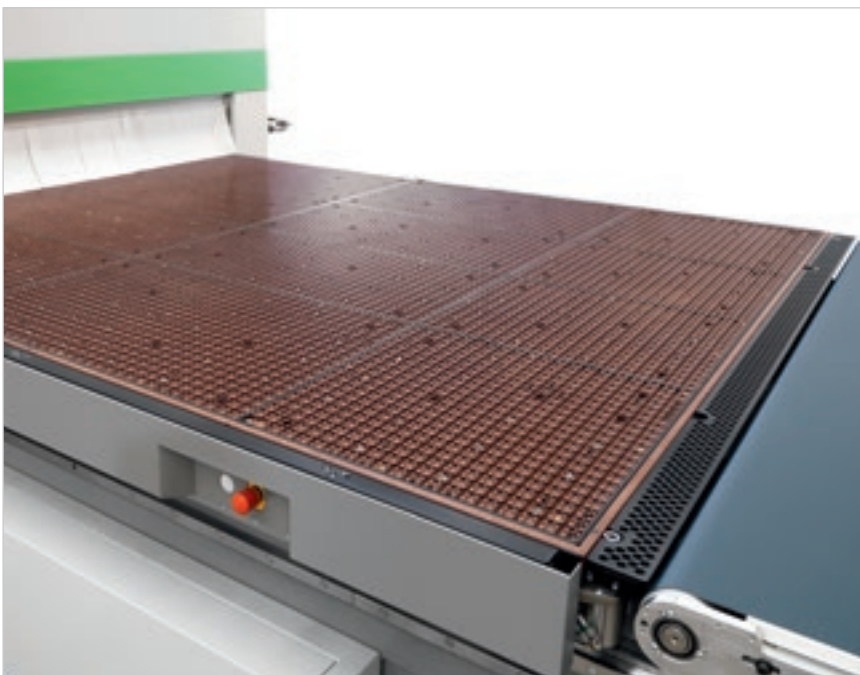


**Higher motor power** increases acceleration up to  $5 \text{ m/s}^2$  and speed up to  $120 \text{ m/min}$ .

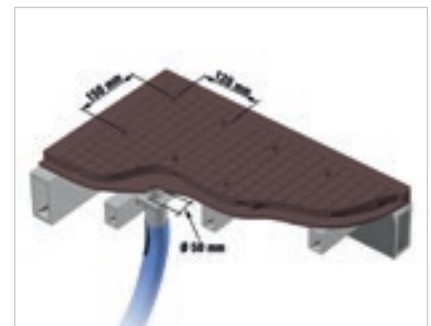
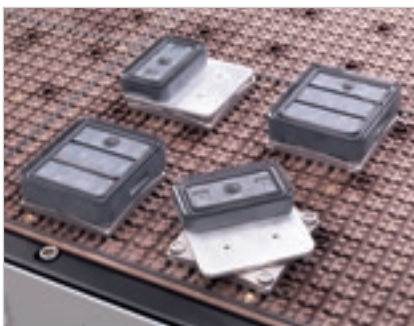


# Ability to handle both large and small panels of varying thickness

Advanced work table technology to machine panels of different types and sizes with the utmost reliability.



Multi-zone technology seamlessly and automatically adapts the vacuum of the machine to the different board sizes that the customer has in his production.



**Vacuum modules** freely positionable on the FT work table without the need for dedicated connections.

Maximum panel gripping thanks to an advanced vacuum distribution system built into the work table.

# 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

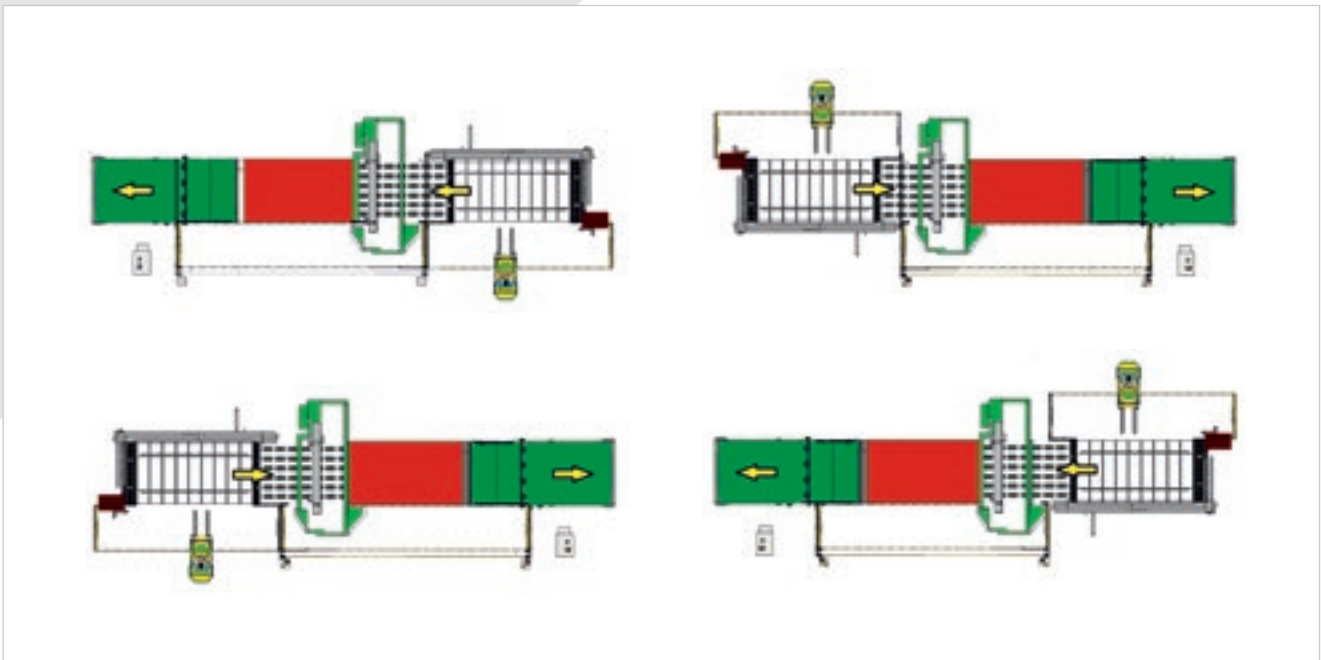


# Can be fully integrated into a working cell

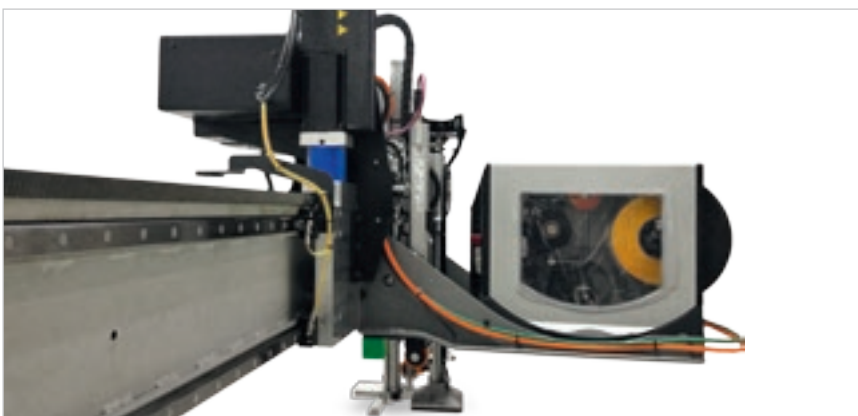
Rover B FT can be customised into a working cell to meet customer requirements.



Loading/unloading operations are carried out simultaneously, allowing the operator to remove completed components from the unloading station in the utmost safety whilst the machine is already processing the next panel.



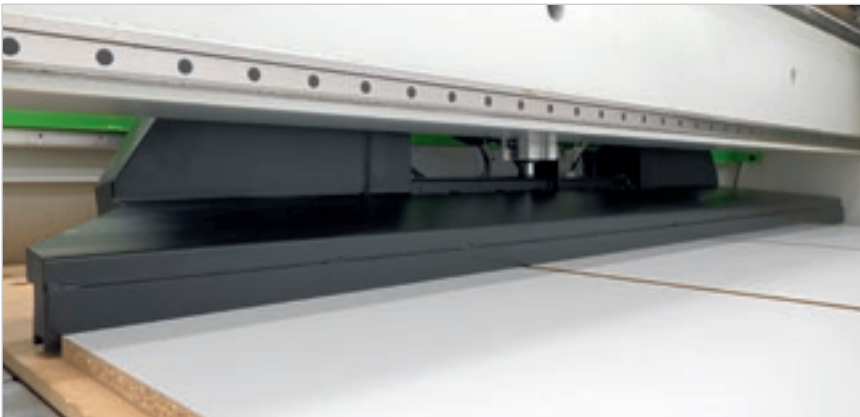
Panel identification and traceability within the production flow thanks to **on-demand labelling system with touch screen.**



# Loading and unloading solutions.

Panel loading system with **scissor lift** and automatic panel alignment. The system's ease of use ensures long term reliability.

The **loading system** enables the handling of both porous and non-porous materials of thicknesses greater than 3mm, whilst also offering automatic labelling.

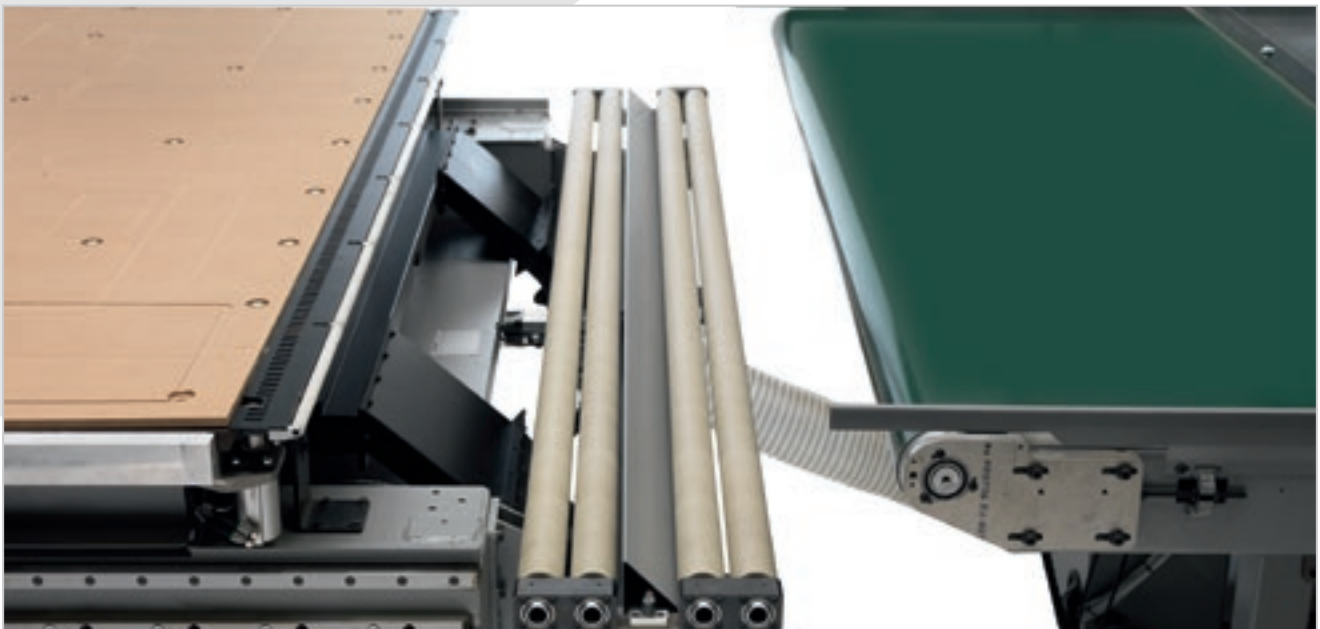


Machine efficiency is dramatically increased due to the **unloading belt**, which enables the removal of completed components outside the machine's work area.

# Increasing manufacturing capacity



The **presser roller** supports machining of up to 3 stacked panels for sofa frames etc. and thanks to the automatic unloading function, there are no limits to the use of machining heads.



The **compressed air-blowing system** within the suction pads enables the detachment of thin and porous stacked panels.

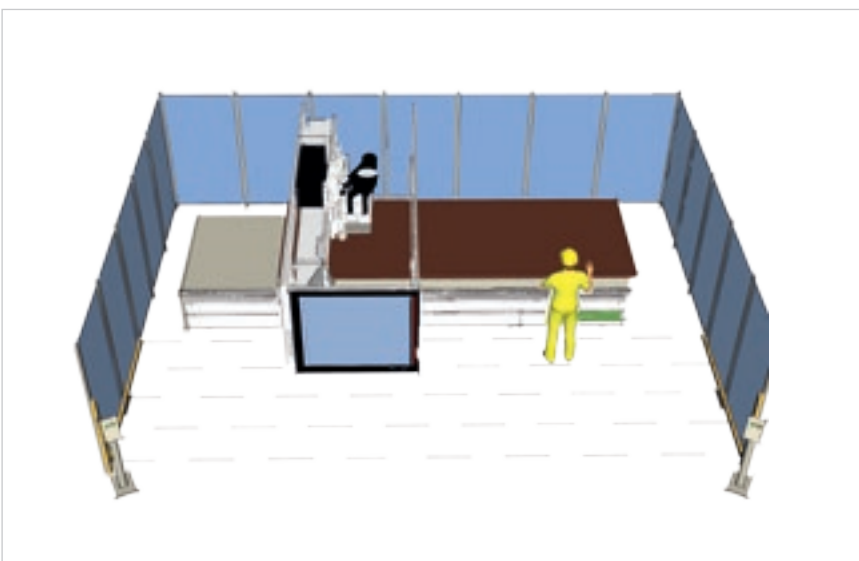
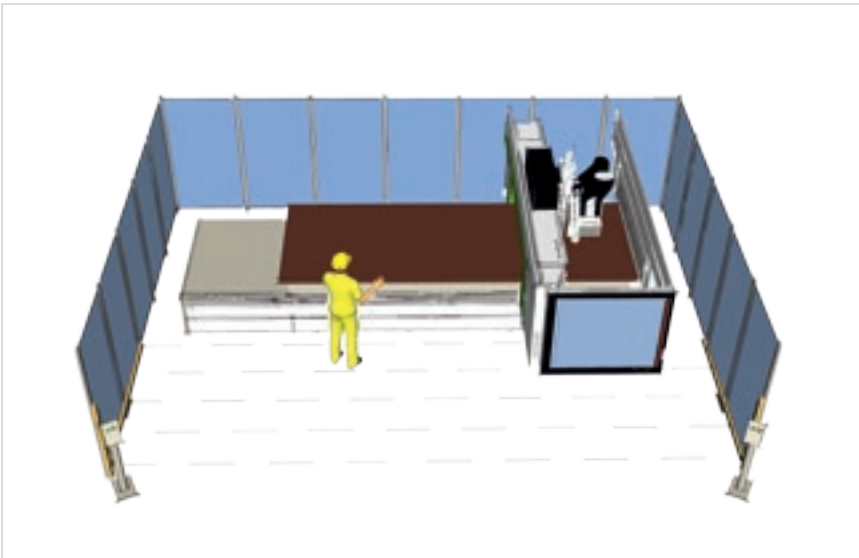


The **loop presser** supports the machining of curved and stacked panels by applying pressure to the upper surface of the panel.





The machine can be configured with **tandem loading** in order to alternately process panels. This allows for loading or unloading to be carried out during machining operations.



# Competitive customisation

**Biesse Systems is a team of highly trained engineers for large scale production processes. Biesse Systems offers integrated cells and systems that are capable of maximising customer competitiveness by combining mass production techniques with a high degree of customisation to meet customers' exact requirements.**

## PRODUCTION LINES

Made-to-measure turnkey factories, plus the integration of Biesse Group solutions with complementary software and machinery, with over 300 systems installed worldwide. A perfect combination of Biesse Group's experience and Italian genius.





# Lean, efficient production flows



**Winstore 3D K3** is an automated magazine for the optimised management of panels for companies who wish to increase their productivity, guaranteeing production with reduced times and costs.

- ▶ **Rapid return on investment thanks to increased performance and reduced costs.**
- ▶ **Production flow optimisation.**
- ▶ **Integration in the production line.**



The **Winstore 3D K3** ensures that the panels to be machined are easily accessible at all times, so it is possible to substantially increase cell productivity compared to manual loading methods using a forklift truck, without frequent stack changes.

- ▶ Reduced delivery times.
- ▶ Reduced warehouse space required.
- ▶ Reduced labour.
- ▶ Waste reduction.
- ▶ Less risk of damaging panels.

# Optimal cleaning of machined components and work area

Various automatic machine and component cleaning options are available which saves operator time.



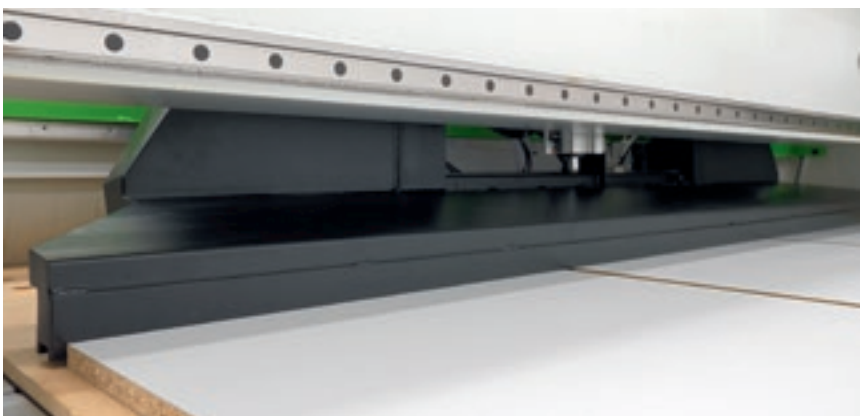
Adjustable **suction hood** with 6 settings.



**Dust intake manifold** between machine and unloading belt.



**Additional aspiration kit for unloading belt** consisting of 2 suction hoods, on the top and end of the belt.



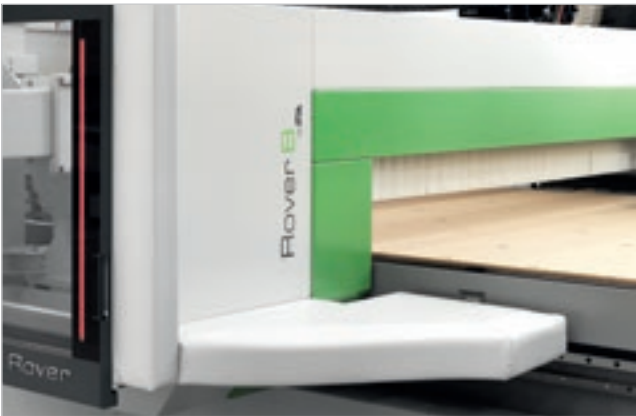
The **sweeper arm** with integrated suction supports the simultaneous cleaning and unloading of panels, avoiding manual intervention.

# Maximum operator safety

**Biesse machines are designed to enable operators to work in complete safety.**

Long term safety and reliability thanks to the new **bumpers** combined with **photocells** with no footprint or mechanical wear.

22 overlaid layers of **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.



Working unit **total protection**.

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.

# High-tech becomes accessible and intuitive



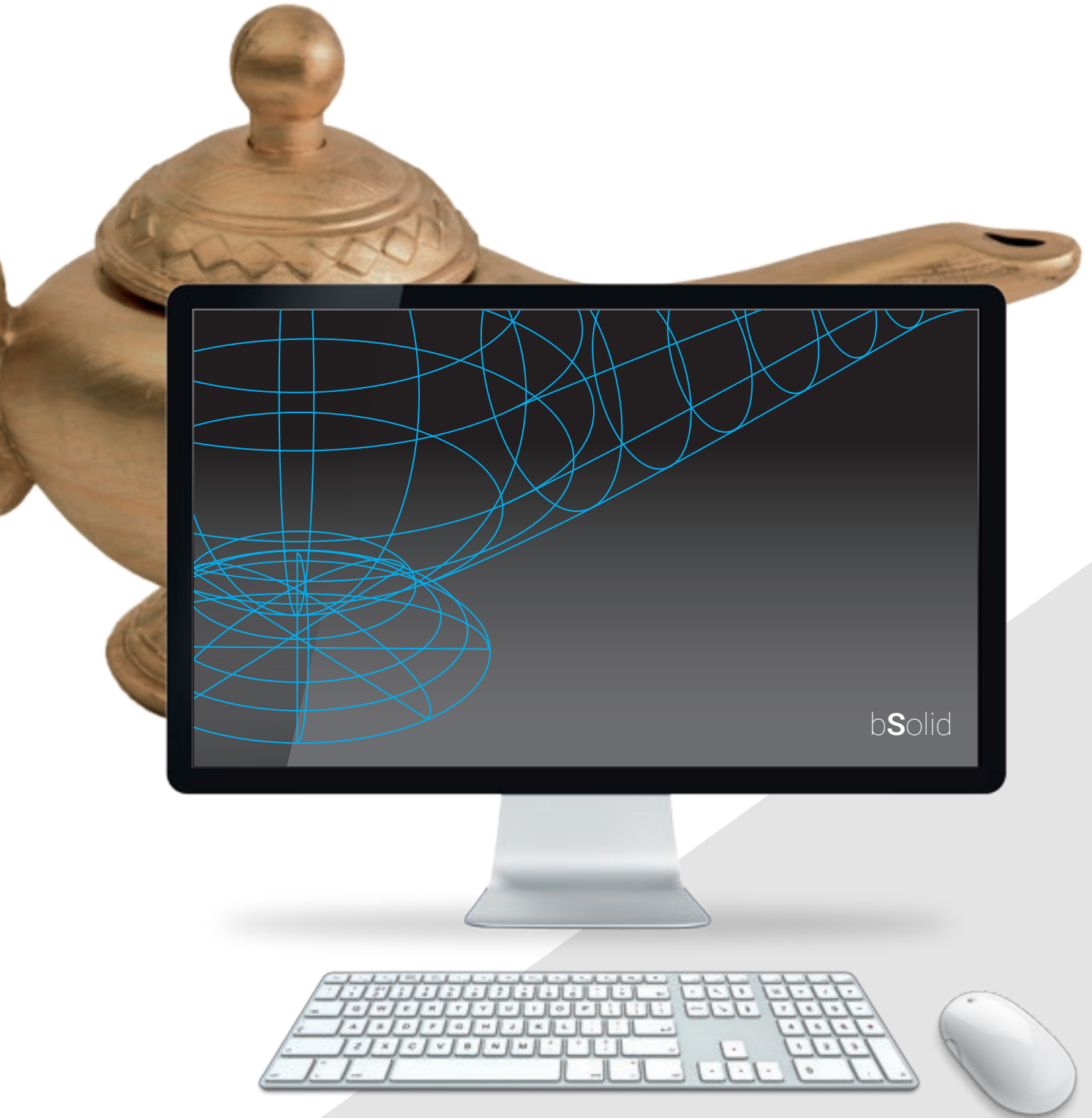
**bSolid** is a 3D cad cam software program that supports the performance of any machining operation thanks to vertical modules designed for specific manufacturing processes.

- ▶ **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





# Reduced time and waste

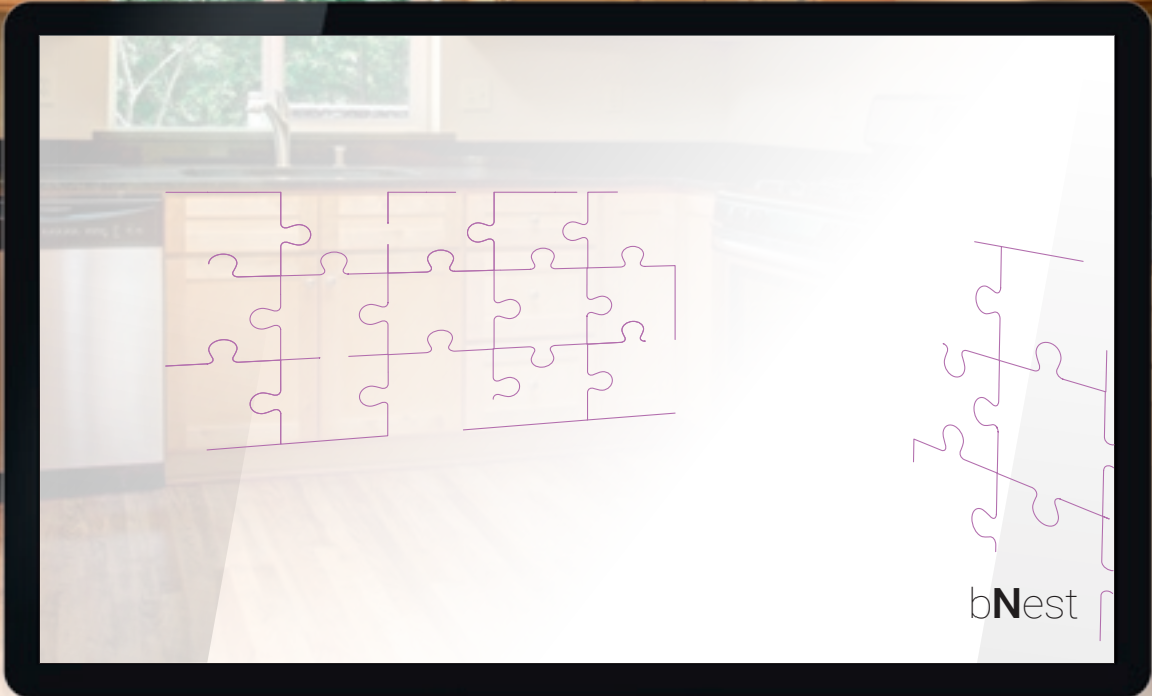


**bNest** is the bSuite plugin specifically for nesting operations. It allows you to organise your nesting projects in a simple way, reducing the material waste and machining times.

- ▶ **Reduced production costs.**
- ▶ **Simplified work for the operator.**
- ▶ **Integration with company software.**



# bNest



# 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.**

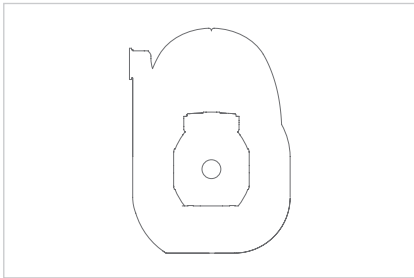
# bCabinet



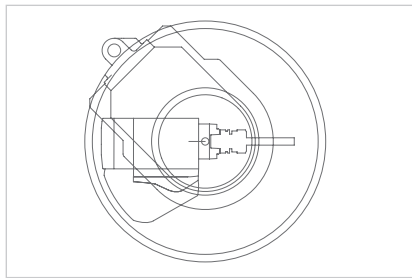
bCabinet



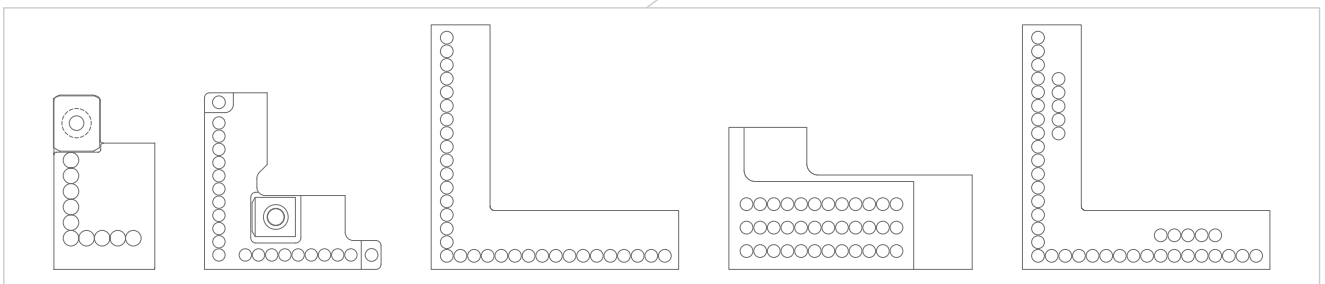
# Configuration



Milling unit from 13.2 to 19.2 kW.

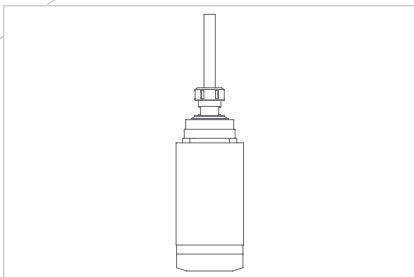


5 axis heads of 13 to 16.5 kW.

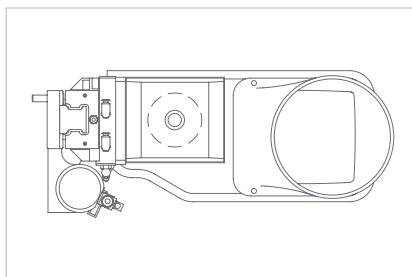


## Milling unit for 10-20-32-36-42 tool

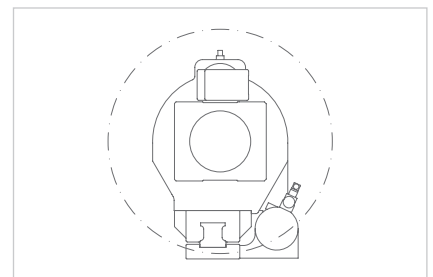
The milling units for 10-20 tools are available with horizontal tool kits and blades.



5.4 kW horizontal milling unit.



7.2 kW vertical milling unit.



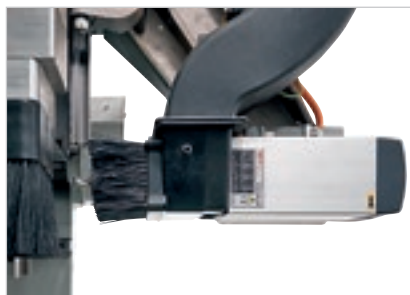
Multi-function unit with 360° rotation.



A complete range of aggregates.



Exceptional finish, increased productivity.



**The multi-function unit**, which can be continuously positioned over 360° by NC, can house aggregates used to carry out specific machining operations (pocketing for locks, hinge housings, deep horizontal bores, edge trimming, etc.).



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



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

# Service 4.0

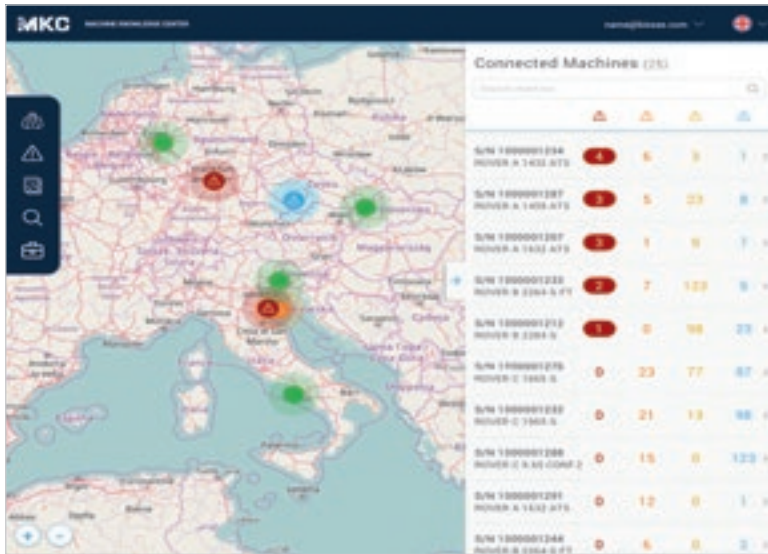
Biesse has developed a wide range of services to enhance machine performance and customer productivity, improving operational efficiency and lowering costs.

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.

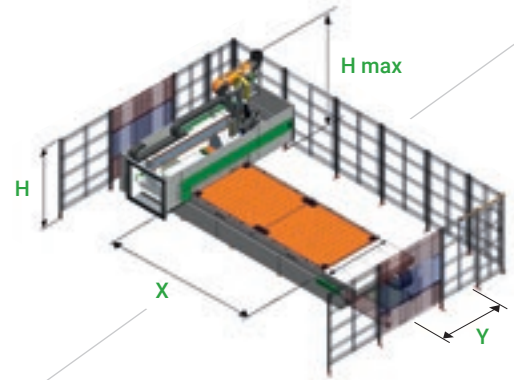
**60 minutes** maximum time taken to deal with an instance of machine stoppage.

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

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



# Technical specifications

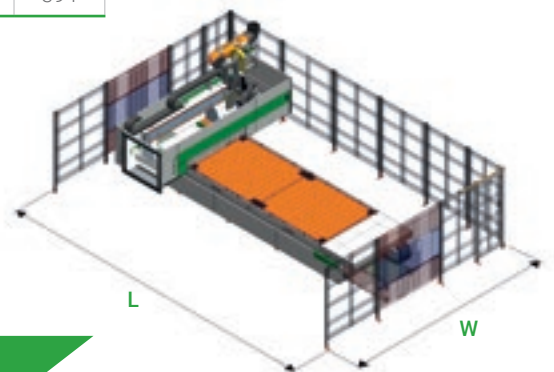


## Working fields and height Z

	X		Y		Pendular NO suspension		Z		H		H max	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	2465	97	1260	50	-	-	200	8	1980	78	2730	107
Rover B FT 1536	3765	148	1560	61	1390	55	200	8	1980	78	2730	107
Rover B FT 1564	6450	254	1560	61	2740	108	200	8	1980	78	2730	107
Rover B FT 1836	3765	148	1875	74	1390	55	200	8	1980	78	2730	107
Rover B FT 2231	3100	122	2205	87	1060	42	200	8	1980	78	2730	107
Rover B FT 2243	4300	169	2205	87	1660	65	200	8	1980	78	2730	107
Rover B FT 2264	6450	254	2205	87	2740	108	200	8	1980	78	2730	107

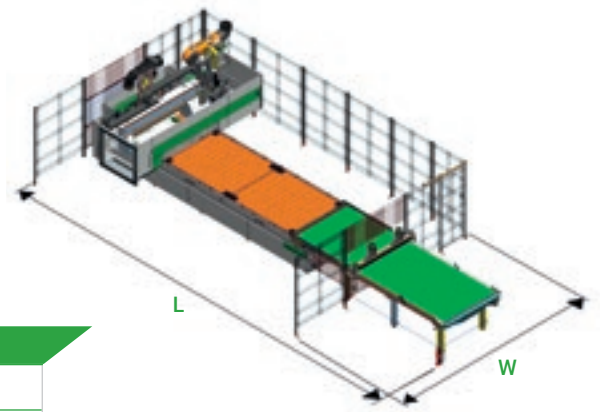
## Speed

	X		Y		Z		Vector	
	m/min	ft/min	m/min	ft/min	m/min	ft/min	m/min	ft/min
Rover B FT	85	279	85	279	35	115	120	394



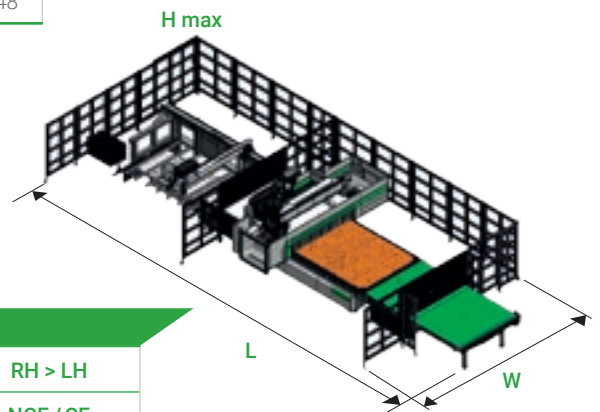
## Overall stand alone dimensions

Front access	L				W			
	NCE		CE		NCE		CE	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	6435	253	6435	253	5034	198	5137	202
Rover B FT 1536	8338	328	8338	328	5364	211	5647	222
Rover B FT 1564	11004	433	11004	433	5334	210	5617	221
Rover B FT 1836	8338	328	8338	328	5634	222	5917	233
Rover B FT 2231	7648	301	7648	301	6024	237	6307	248
Rover B FT 2243	8878	350	8878	350	6024	237	6307	248
Rover B FT 2264	11004	433	11004	433	6024	237	6307	248



## Overall dimensions of unloading belt only

	L				W			
	LH > RH		RH > LH		LH > RH		RH > LH	
	NCE / CE		NCE / CE		NCE / CE		NCE / CE	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	8154	321	8154	321	5317	209	5317	209
Rover B FT 1536	10679	420	10615	418	5647	222	5647	222
Rover B FT 1564	-	-	-	-	-	-	-	-
Rover B FT 1836	10679	420	10615	418	5917	233	5917	233
Rover B FT 2231	9346	368	9248	364	6307	248	6307	248
Rover B FT 2243	11763	463	11665	459	6307	248	6307	248
Rover B FT 2264	15847	624	15107	595	6307	248	6307	248



## Overall dimensions of nesting cell

	L				W			
	LH > RH		RH > LH		LH > RH		RH > LH	
	NCE / CE		NCE / CE		NCE / CE		NCE / CE	
	mm	inch	mm	inch	mm	inch	mm	inch
<b>Nesting cell - Type A</b>								
Rover B FT 1224	10220	402	9555	376	5317	209	5317	209
Rover B FT 1536	13928	548	13264	522	5647	222	5647	222
Rover B FT 1564	-	-	-	-	-	-	-	-
Rover B FT 1836	13928	548	13264	522	5917	233	5917	233
Rover B FT 2231	11982	472	11361	447	6307	248	6307	248
Rover B FT 2243	15642	616	14944	588	6307	248	6307	248
Rover B FT 2264	20379	802	19689	775	6307	248	6307	248
<b>Nesting cell - Type B</b>								
Rover B FT 1224	12886	507	12898	508	5317	209	5317	209
Rover B FT 1536	16624	654	16637	655	5647	222	5647	222
Rover B FT 1564	-	-	-	-	-	-	-	-
Rover B FT 1836	16624	654	16637	655	5917	233	5917	233
Rover B FT 2231	14678	578	14717	579	6307	248	6307	248
Rover B FT 2243	18308	721	18317	721	6307	248	6307	248
Rover B FT 2264	23075	908	23062	908	6307	248	6307	248

# 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

## Maton and Biesse make music together.

With more than 1200 models of guitars made for thousands of professional musicians, Maton Guitars confirms its worldwide presence, becoming a truly great Australian success story. "The best guitar is the one that the market demands," states Patrick Evans, Head of Product Development at Maton. The evolution in production techniques and research into the most efficient software continues, prompting Maton to hunt for new solutions that can better respond to emerging needs. In 2008, after considering the pros and cons of a range of manufacturers, Maton chose Biesse. Maton's production needs incorporate technological requirements and artisan skills; the right balance of these two allows them to achieve the highest levels of quality and performance. A great guitar is both a work of art and a fine musical instrument. To obtain these results, the right tools are crucial - both for heavy machining operations and delicate processes, to create 3D shapes and work with minimal tolerances. Biesse has provided Maton with a range of advanced solutions for machining processes, not only adding quality to the products, but also providing the skilled craftsmen with more time to devote to manual finishes, ensuring that every product is unique.

In 1995, the company installed their first CNC machine. They now have two nesting centres in tandem. The Rover C is the ideal machine for high-precision nesting operations, but also for creating complex shapes, such as the body of Maton's unique guitars. The machine's newly-designed cabin provides excellent visibility of all working units. Biesse is much more than a manufacturer of machinery for producing kitchens. Their impressive range of machines can process an astounding range of materials and products. "In creative hands," commented Patrick Evans, "Biesse becomes the instrument of a true craftsman. The key is to identify the right machine for the job. We found we can accomplish much more than we thought on a Biesse machine." Maton also uses the two Biesse machines to create new product prototypes; the most complex shapes, and almost every individual part which makes up a Maton guitar. Patrick confirms that Maton uses the Biesse CNC machine at high speeds even on the most complex parts, such as the magnificent fingerboard. "We need enough flexibility to be able to switch from one model to another very quickly, and Biesse allows us to do this very effectively." Biesse gives users the creative freedom to produce virtually

any concept, both quickly and efficiently. "With the Biesse's CNC machine," Patrick continues, "you can turn your ideas into reality much faster. Thanks to the flexibility provided by Biesse machines, we can produce two fingerboard prototypes in seven minutes! If we made them by hand, it would take a whole day. Using Biesse machines has allowed us to create eight new guitar models this year alone." Using Biesse machines has allowed Maton to devote more time to the quality of the finish, wasting less time on processing individual pieces. Each Maton guitar is hand-finished by a dedicated and qualified team of luthiers. Maton has demonstrated that it is possible to produce a guitar in Australia with a worldwide reputation for quality, using Australian timber and technologies. Maton knows exactly how to design and build a unique, one-of-a-kind product, a well-made guitar, and with Biesse as valued partner, the best guitars in the world are brought to life.

*Taken from an interview with Patrick Evans, head of Product Development at Maton Guitars - Australia*



<http://www.maton.com.au>



# 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**

