NC edgebanding machining centre
When competitiveness means being able to satisfy any requirements
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 meets these requirements with technological solutions that influence and support technical expertise as well as process and material knowledge. Rover A Edge is an edgebanding machining centre that supports the machining of shaped panels, which can be edgebanded on a single, compact, high performance machine. It is ideally suited to small and large joineries that need to manufacture either odd size products or standard size products in small batches.

☑ Optimal edge grip.

☑ Optimal finish quality.

☑ Machine customisation depending on production requirements.

☑ Cycle time reduction and productivity increase.

☑ Reduced tool changeover time.
Manufacturing shaped and edgebanded panels with a single machine

ROVER A EDGE
NC edgebanding processing centre
Optimal edge grip

Similar to 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 an 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.
Optimal edge pressure quality during gluing on shaped panels thanks to the twin roller edge pressure system.

Facility to apply thick edges even on small radius curves, thanks to the edge heating lamp.

(Optional) video-camera for the easy set up of critical materials or dimensions.

Glue melting in Teflon-coated pots equipped with resistors and level gauge. This supports quick and easy maintenance operations and the comprehensive monitoring of glue levels for automatic reloading.

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

Additional glue pots equipped with quick-release electrical system for PU granule adhesives.
Cycle time reduction

- Storage of up to 6 coils of tape on the machine to facilitate quick tape changeover.

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

- Precise and repeatable performance due to the closed-loop sensor which compensates for variances in panel and edging tape tolerances.
Solutions that increase machine productivity.

- **Y dual axis** to carry out tool changes and edge feeding during machining.

- **Independent Z dual axis** to efficiently support different types of boring heads for 9, 24 or 30 drills or multi-function tools.

- 16 position tool magazine for edge-banding operations.
A full configuration of the working unit supports the execution of different types of machining operations whilst ensuring a high finished product quality.

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

4-axis configuration.
5-axis configuration.

The cutting-edge 5-axis working group supports the machining of pieces with complex shapes, ensuring quality and precision.
New C Torque axis: more precise, quicker, more rigid.

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

The electrospindle, boring head and aggregates are designed and manufactured for Biesse by HSD, the global leader in the mechatronics sector.
Optimal cleaning of machined component and work area

- Motorised conveyor belt for the removal of chips and waste.
- NC controlled chip deflector.
- Suction hood with 6 settings equipped with a blowing unit for panel cleaning during edge finishing.
Reduced tool changeover time

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

Over 1500 processing centres sold with EPS.

Hyperclamps for rigid and precise locking.

Pneumatic Uniclamps.

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.

EPS (Electronic Positioning System) supports the automatic reconfiguration of the entire work area in less than 30 seconds. 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 opposite area.
The machine can house up to 28 aggregates and tools.

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

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

Quick and easy boring head change thanks 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.
Choose from a comprehensive range of bed sizes to facilitate the machining of all panel sizes.

Rover A 1632
Rover A 1643
Rover A 1659

The cross-head thickness tracer enables operators to measure panel dimensions with absolute precision.

The open front cowl supports the loading of very-large sizes (up to 2100 mm in y axis) onto the machine, thus enabling the pre-sectioning phase to be omitted or machining operations to be performed for non-standard products.

Ability to process large sizes
Two machines in one: the full functionality and quality of a true pantograph table are guaranteed by the CFT (Convertible Flat Table), which supports the machining of thin panels, nesting and folding.
Maximum operator safety

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

- This solution supports tandem loading of panels wider than 500 mm.

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

Perimeter guards with front access door.
Maximum visibility of machining operation. **LED bar with 5 colours** showing machine status in real time.

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.
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.

BIENNE IDENTIITY

An innovative yet simple design is the hallmark of Biesse’s distinctive identity. The perfect combination of Italian genius and taste.
High-tech becomes accessible and intuitive

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

- Planning in just a few clicks, with endless possibilities.
- Simulating machining operations to view the process prior to manufacture and maximise material and process efficiencies.
- Virtual prototyping of the piece to avoid collisions and ensure optimal machine efficiency.

Watch the bSolid ad at: youtube.com/biessegroup
Simplifying edgebanding programming

bEdge is a bSolid plug-in, seamlessly integrated, for edgebanding planning.

- Automatic issue of edgebanding machining operations sequence.
- Implementation of software basic knowledge depending on machining requirements.
- Streamlining of edgebanding aggregate management.
Working unit configuration

4-axle configuration.

Available boring heads from 9 to 30 drill positions: BH30 2L - BH24 - BH9.

Horizontal 1 or 2 outlet milling units.

Milling unit with air or liquid cooling, HSK F63 coupling and power from 13.2 kW to 19.2 kW.

6 kW vertical milling unit.

Multi-function, with 360° rotation.
5-axis configuration.

5 axis 13 kW – HSK F63.

Available boring heads from 9 to 30 spindles: BH30 2L - BH24 - BH9.
Many solutions for perfect finishes

Finishing aggregates for edgebanding operations.

A complete range of aggregates for all machining operations.
In order to achieve maximum adhesion the use of a blower unit is recommended to clean the panel edge prior to the application of both the glue and tape.
Biesse can provide bespoke solutions which are tailored to meet your specific productivity, automation and space requirements.

RBO WNR is a machine that is ideally suited for automated, high-performance production lines. Supremely modular, with fully automated machine adjustment, it can also be used in conjunction with lifting tables and mechanical panel detachment device.
Biesse CNC Edgbanding Range

CNC - BORDATURA

ROVER A EDGE

ROVER B EDGE

EDGE LINE
Technical specifications

Working table

<table>
<thead>
<tr>
<th></th>
<th>X tandem loading, belt operated</th>
<th>X tandem loading, with bumper and photocells</th>
<th>Y standard loadable piece</th>
<th>Y loadable piece optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rover A Edge 1632</td>
<td>mm/inch 3280 / 130 1100 / 44</td>
<td>mm/inch 1100 / 44</td>
<td>mm/inch 1580 / 63</td>
<td>mm/inch 1900 / 75</td>
</tr>
<tr>
<td></td>
<td>millling</td>
<td>single zone</td>
<td></td>
<td>2100 / 83</td>
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<tr>
<td></td>
<td>edgebanding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rover A Edge 1643</td>
<td>mm/inch 4320 / 170 1620 / 64</td>
<td>mm/inch 1620 / 64</td>
<td>mm/inch 1580 / 63</td>
<td>mm/inch 1900 / 75</td>
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<tr>
<td>Rover A Edge 1659</td>
<td>mm/inch 5920 / 233 2420 / 96</td>
<td>mm/inch 2420 / 96</td>
<td>mm/inch 1580 / 63</td>
<td>mm/inch 1900 / 75</td>
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</tbody>
</table>
The measurement was carried out in compliance with UNI EN 848:2007, 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.

<table>
<thead>
<tr>
<th>CE</th>
<th>loadable panel</th>
<th>X with outer edge magazine</th>
<th>Y</th>
<th>H</th>
<th>H MAX 4 axles</th>
<th>H MAX 5 axles</th>
</tr>
</thead>
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<tr>
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<td>belt operated 1900/75</td>
<td>7045/278</td>
<td>7884/311</td>
<td>5387/213</td>
<td>2000/79</td>
<td>2400/95</td>
</tr>
<tr>
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<td></td>
<td>with bumper and photocells 2100/83</td>
<td>7045</td>
<td>7884</td>
<td>5437/214</td>
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<td>2400/95</td>
</tr>
<tr>
<td>Rover A Edge 1643</td>
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<td>8917/352</td>
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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
“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 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 Stock Exchange (STAR segment) since June 2001.

1 industrial group, 4 divisions and 8 production sites.

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

33 branches and 300 agents/selected dealers.

customers in 120 countries, manufacturers of furniture, design items and door/window frames, producers of elements for the building, nautical and aerospace industries.

3,000 employees throughout the world.

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