



#### The market demands

a change in manufacturing processes, enabling 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 reliable delivery times.

#### Biesse responds

with **high-tech**, **innovative solutions** for nesting operations. **Skill FT** is the Biesse solution for nesting applications. The modern technical solutions, highly flexible work table and innovative developments on the loading and unloading systems make Skill extremely reliable and competitive.

- ✓ Maximum productivity, minimum footprint.
- ✓ High precision and long term reliability.
- Flexibility to handle both large and small panels of varying thickness.
- ✓ High-tech becomes accessible and intuitive.



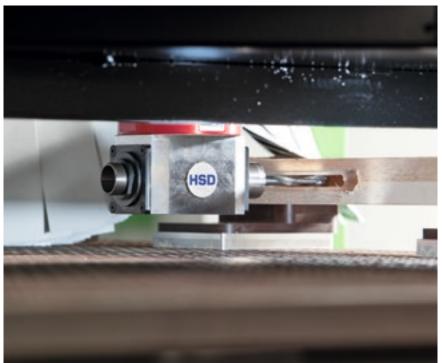


## Not just nesting

Skill FT is a processing centre that provides a finished product machined entirely on one machine. Configurations can be personalised to suit specific production requirements.

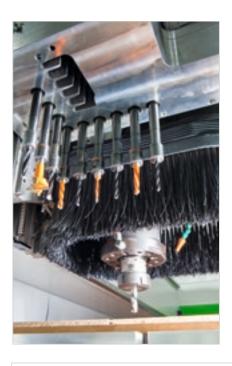






### Biesse uses the same high-tech components for all machines in the Rover range.

**Electrospindles, boring heads and aggregates** are designed and manufactured for Biesse by HSD, the global leader in the mechatronics sector.







A complete range of aggregates.

## Productive economy

Skill processing centres for Nesting use the same high quality components for all products in the Rover range. These centres provide finished products with just one machine in operation, and offer various loading and unloading solutions, which are customised according to production cycles, resulting in significant reductions in production costs.

### **NESTING SOLUTIONS**

Productivity and efficiency are increased, while maintaining high quality standards and fast delivery times.

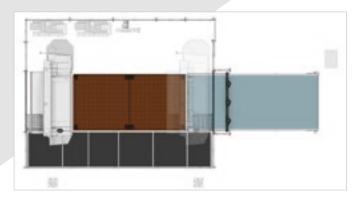
A perfect combination of Biesse optimisation and Italian genius.

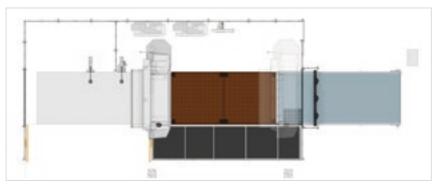


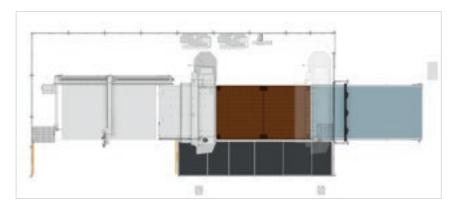
## Maximum productivity, minimum footprint

Biesse offers technological solutions for loading and unloading panels that automate and optimise the machining process with a footprint that is reduced by up to 40%.

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

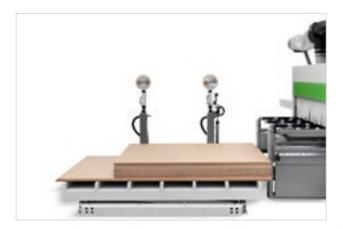
















The **sweeper arm** with integrated suction supports the simultaneous cleaning and unloading of panels, avoiding manual intervention.



Moving the panel with **dynamic vacuum suction cup loading system.** A solution that adapts to all surface types.



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



The **loading system** handles both porous and non-porous materials with thicknesses greater than 9mm whilst also offering automatic labelling.

## High precision and reliability over time

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





**Automatic lubrication** is an option that 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 finish precision and quality.

## Reduced tool changeover time

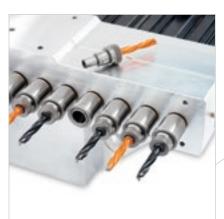




Up to 24 **aggregates and tools** available on the machine. It is possible to switch from one machining operation to the next with no need for operator intervention for tool changes.



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.



Quick and easy boring head change thanks to the exclusive spindle snap-on coupling system.

# Handling both small and large panels of varying thickness



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The many sizes available enables operators to process all standard panel dimensions required for nesting.

Skill 1224 Skill 1536 Skill 1836 Skill 2231 Skill 2243



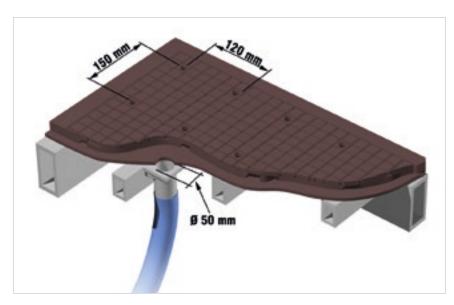
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Advanced **work table** technology to machine panels of different types and sizes with the utmost reliability.



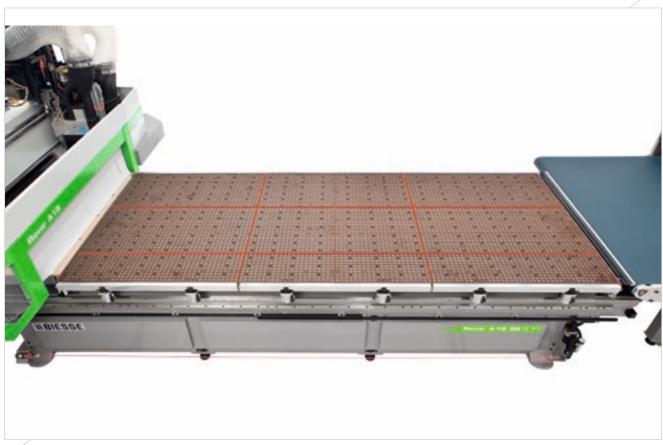
**Vacuum modules** freely positionable on the FT work table without the need for dedicated connections.

Maximum panel security thanks to an advanced distributed vacuum system within the work table.



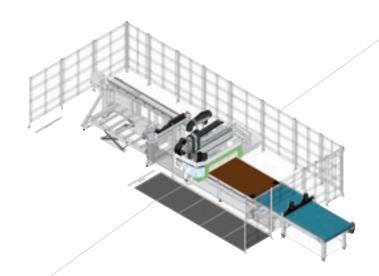


**Multi-zone** technology able to concentrate the vacuum in smaller areas of the work table where required, in order to hold smaller components and reduce vacuum loss.



## From the operator's point of view

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





**Perimeter guards** with access door and safety device to prevent accidental contact with the machine.





**Side curtain guards** to protect the working unit which are movable to enable the machine to work at maximum speed in total safety



**Total protection** of working unit with maximum visibility and total safety.



A number of options for cleaning panels and the surrounding area are available which save operator time.



**∠** 

Adjustable **suction hood** with 6 settings.



Vacuum aspiration from below, between the machine and the unloading belt, and suction hood on the top of the



## 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 efficiency.

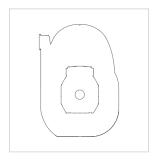
Watch the **bSolid** ad at: youtube.com/biessegroup

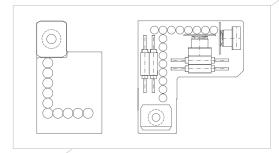


### **Solid**



## Configuration



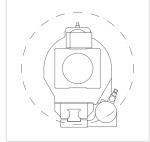


Boring heads from 13.2 to 19.2 kW.

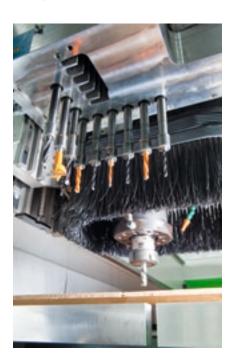
Boring heads for 10-26 tools.



5.4 kW horizontal milling unit.



Multi-function with 360° rotation.



## Exceptional finish quality

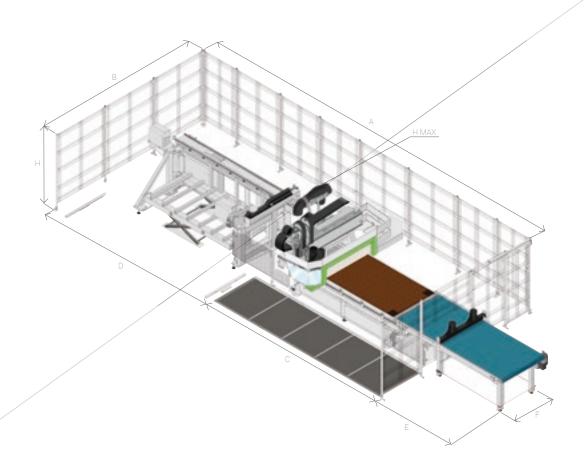


The NC controlled **multi-function unit** can be infinitely positioned on a 360 (degree) rotation. It can also be used to house aggregates for specific machining operations such as pocketing for locks, hinges, deep horizontal holes and edge-trimming.



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

## Technical specifications



#### Working fields

	Х	Υ	Z
	mm / inch	mm / inch	mm / inch
Skill 1224	2465/97	1260/49.6	120/6.6
Skill 1536	3765/148.2	1560/61.4	120/6.6
Skill 1836	10670/420	1875/73.8	120/6.6
Skill 2231	10670/420	2205/86.8	120/6.6
Skill 2243	10670/420	2205/86.8	120/6.6

X/Y/Z axis speed	60/60/20 m/min
Vector speed	84.8 m/min

#### **Working dimensions**

	mm / inch					
Skill FT 1224	7474/294	-	9840/387	-	11996/472	-
Skill FT 1536	9952/392	-	13619/536	-	15760/620	-
Skill FT 1836	9952/392	-	13619/536	-	15760/620	-
Skill FT 2231	9684/381	8574/338	12371/487	11763/463	14267/562	14426/568
Skill FT 2243	12137/478	10959/431	15396/606	15421/607	17912/705	

	X NCE Machine within cell with left-to-right, belt-operated unloading	X NCE Machine within cell with right-to-left, belt-operated unloading	X NCE Complete type A cell with left-to-right flow	X NCE Complete type A cell with right-to-left flow	X NCE Complete B type cell with left-to-right flow	X NCE Complete B type c ell with right-to-left flow
	mm / inch	mm / inch	mm / inch	mm / inch	mm / inch	mm / inch
Skill FT 1224	7830/308	-	9826/387	-	11821/465	-
Skill FT 1536	10302/406	-	13801/543	-	15691/618	-
Skill FT 1836	10302/406	-	13801/543	-	15691/618	-
Skill FT 2231	-	-	-	-	-	-
Skill FT 2243	-	-	-	-	-	-

	X CE Stand alone machine	X NCE stand alone machine	Y CE stand alone machine	Y NCE stand alone machine	н	н мах
	mm / inch	mm / inch	mm / inch	mm / inch	mm / inch	mm/inch
Skill FT 1224	5222/206	5930/233	4482/176	4307/170	1979/78	2247/88
Skill FT 1536	6465/255	7180/283	4782/188	4807/189	1979/78	2247/88
Skill FT 1836	6465/255	7180/283	5052/199	4878/192	1979/78	2247/88
Skill FT 2231	6585/259	-	6174/243	-	1964/77	2361/93
Skill FT 2243	7768/306	-	6174/243	-	1964/77	2361/93

Thetechnical specifications and drawings are non-binding. Some photos may show machine sequipped with optional features. Biesse Spareserves the right to carry out modifications without prior notice.

A weighted sound pressure level (LpA) during machining for operator workstation on vanepump 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 & 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.

Biesse Field engineers in Italy and worldwide.

Biesse engineers manning a Teleservice Centre.

certified Dealer engineers.

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 f or 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.

of downtime machine orders fulfilled within 24 hours.

of orders delivered in full on time.

spare part staff in Italy and worldwide.

orders processed every day.

### Made With Biesse

#### The Sagrada Familia site bets on Biesse.

The carpentry workshop of the majestic cathedral designed by Antoni Gaudí has purchased a BIESSE processing centre mainly to develop moulds for the production of stone, marble and concrete elements, as well as shuttering modules. Salvador Guardiola, a highly experienced carpenter specialised in ship-building and responsible for recreating one of the two Caravels used by Columbo during his voyage to America, has been in charge of the Sagrada Familia site for 19 years. "We have chosen

BIESSE for the quality of their processing centre and their technical service", states Guardiola. "The machine cannot stop: some days, it works 24 hours over 24 and, therefore, we needed someone who is able to immediately react to any emergencies". As a matter of fact, BIESSE's technical service for the Sagrada Familia site shall manage to be effective, timely and accurate thanks to the on-line service that the company offers to its customers.



