

PRO VER PLAST B FT

CNC MACHINING
CENTRE



TECHNOLOGIES FOR PLASTIC AND COMPOSITE MATERIALS

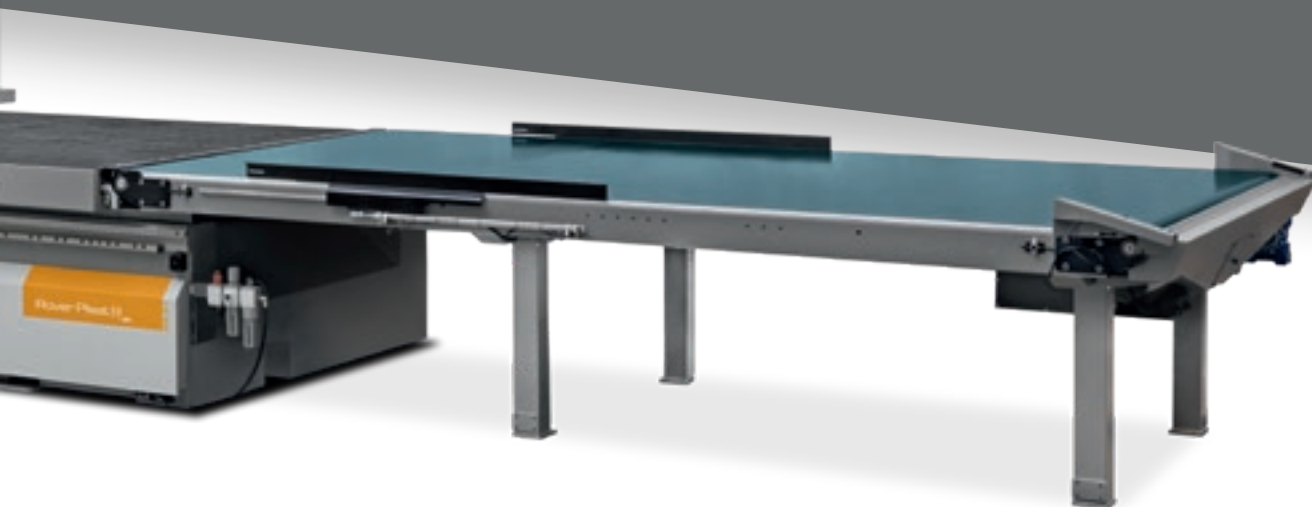


THE MARKET EXPECTS

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 processing technological materials. The **Rover Plast B FT** machining center with gantry and FT table for processing plastic and composite material, typically used in the automotive, construction, defense, technical article and energetic sector.



ROVER PLAST B FT

- ✓ PRODUCTION FLEXIBILITY THAT IS UNIQUE ON THE MARKET
- ✓ PRECISION AND RELIABILITY OVER TIME
- ✓ FULLY INTEGRATED INTO A WORKING CELL
- ✓ THE MOST ADVANCED TECHNOLOGY CLOSE AT HAND

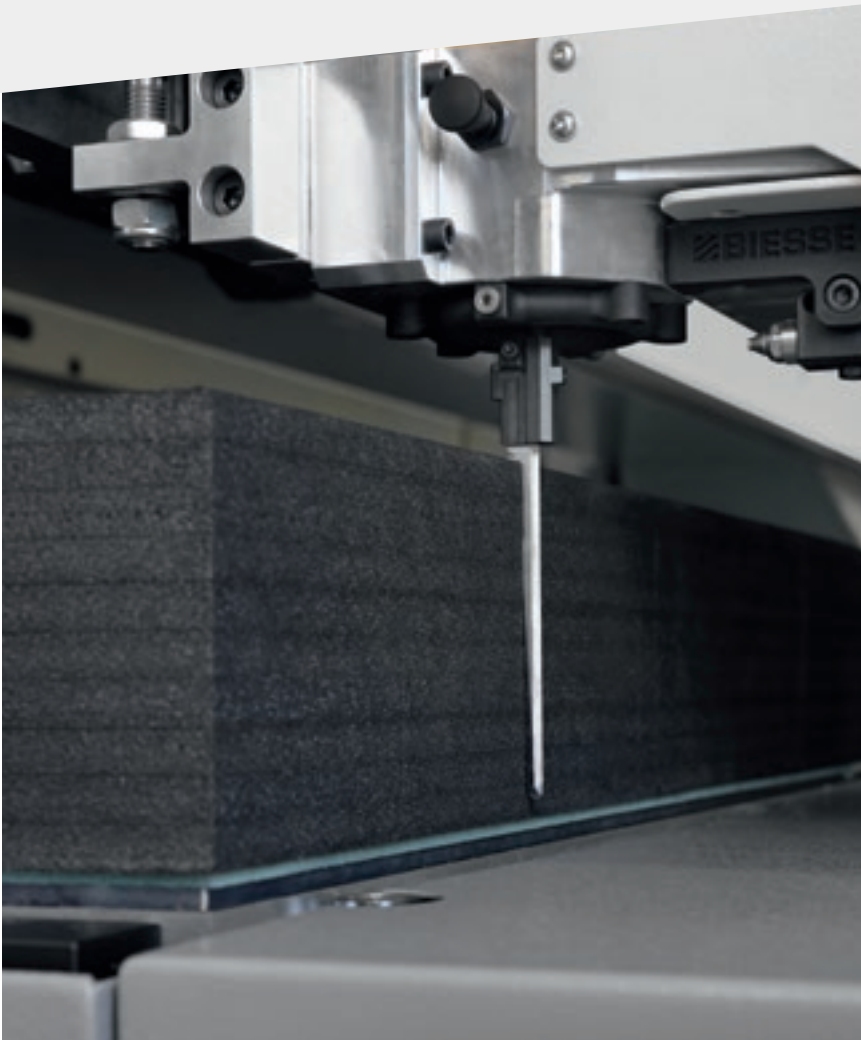
ENDLESS MACHINING POSSIBILITIES

Biesse's sector-leading technology and many years of experience in plastic and composite materials.



The 5-axis unit with direct drive motor offers maximum flexibility in inclined and interpolated machining operations, with no need to fear excessive stress.

BIESSE PROVIDES TECHNOLOGICAL SOLUTIONS FOR PROCESSING THE MOST COMMON MATERIALS REQUESTED BY THE MARKET: PE, PP, PVC AND PMMA, BUT ALSO COMPOUNDS, TECHNOPOLYMERS, RUBBER, EXTRUSIONS AND FOAMS.

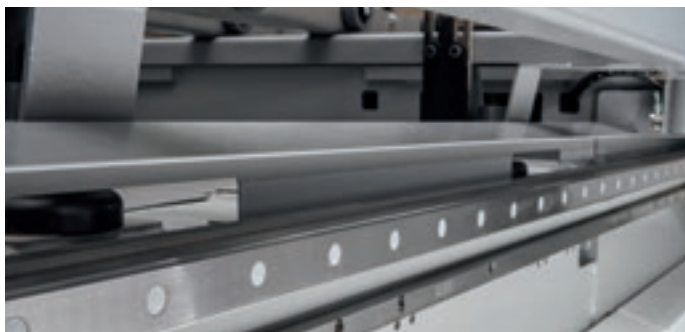


PRECISION AND RELIABILITY OVER TIME

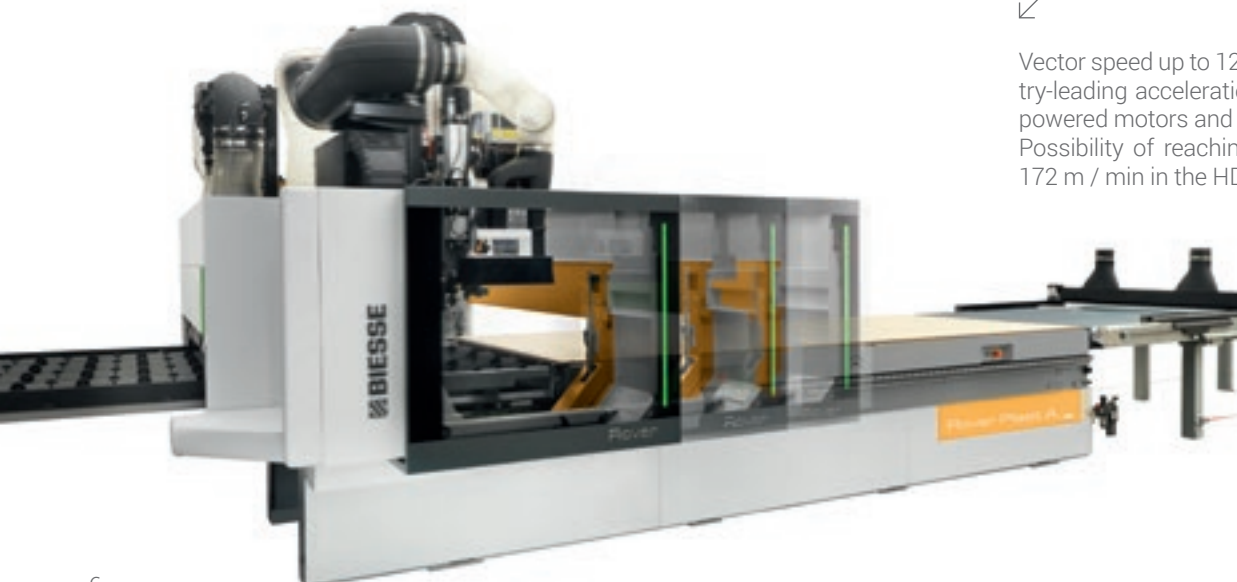
Rover Plast B FT has an extremely solid and well-balanced structure designed to withstand considerable machining stress and guarantee outstanding results.



The Gantry structure with dual X motors is designed to increase precision and reliability standards for the execution of machining operations.



The reinforced and protected transmission guides lend the machine greater rigidity, boosting the level of precision and machining quality and guaranteeing a longer working life.



Vector speed up to 120 m / min and industry-leading accelerations thanks to higher powered motors and drives. Possibility of reaching a vector speed of 172 m / min in the HD version.

WORK TABLES, UNIQUE ON THE MARKET

Maximum results thanks to the option of equipping the machine with 5-axis technology.



The Rover Plast B FT can be fitted with the same components used on other top-of-the-range models. The electrospindle and aggregates are designed and manufactured for Biesse by HSD, the global leader in this sector.

Air Jet system

cools the material and the tool during machining, using air that's up to 60° colder than the ambient temperature to improve the finish of the piece and lengthen the lifespan of the tool.

Ioniser for neutralising electrostatic charges eliminates the electrostatic charges that build up on the material being processed, aiding chip evacuation and improving the machining quality whilst helping to keep the machine and the working area clean.

C AXIS TORQUE: MORE PRECISE, QUICKER, GREATER RIGIDITY

Electrospindles for every application: up to 19.2 kW or 36000 rpm.

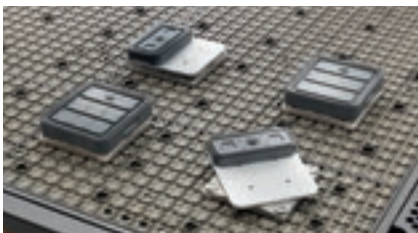


TOP-OF-THE-RANGE COMPONENTS

Maximum results thanks to the option of equipping the machine with 5-axis technology.



LED PROJECTOR FOR QUICK WORK TABLE TOOLING. MYVA DEVICE



FT modules with aluminium adapter
The FT PLUS table facilitates the positioning of the modules, ensuring maximum stability.



The vacuum modules can be directly positioned on the support panel
The modules can be quickly and easily used, even without the auxiliary vacuum system, without compromising the hold on the material.

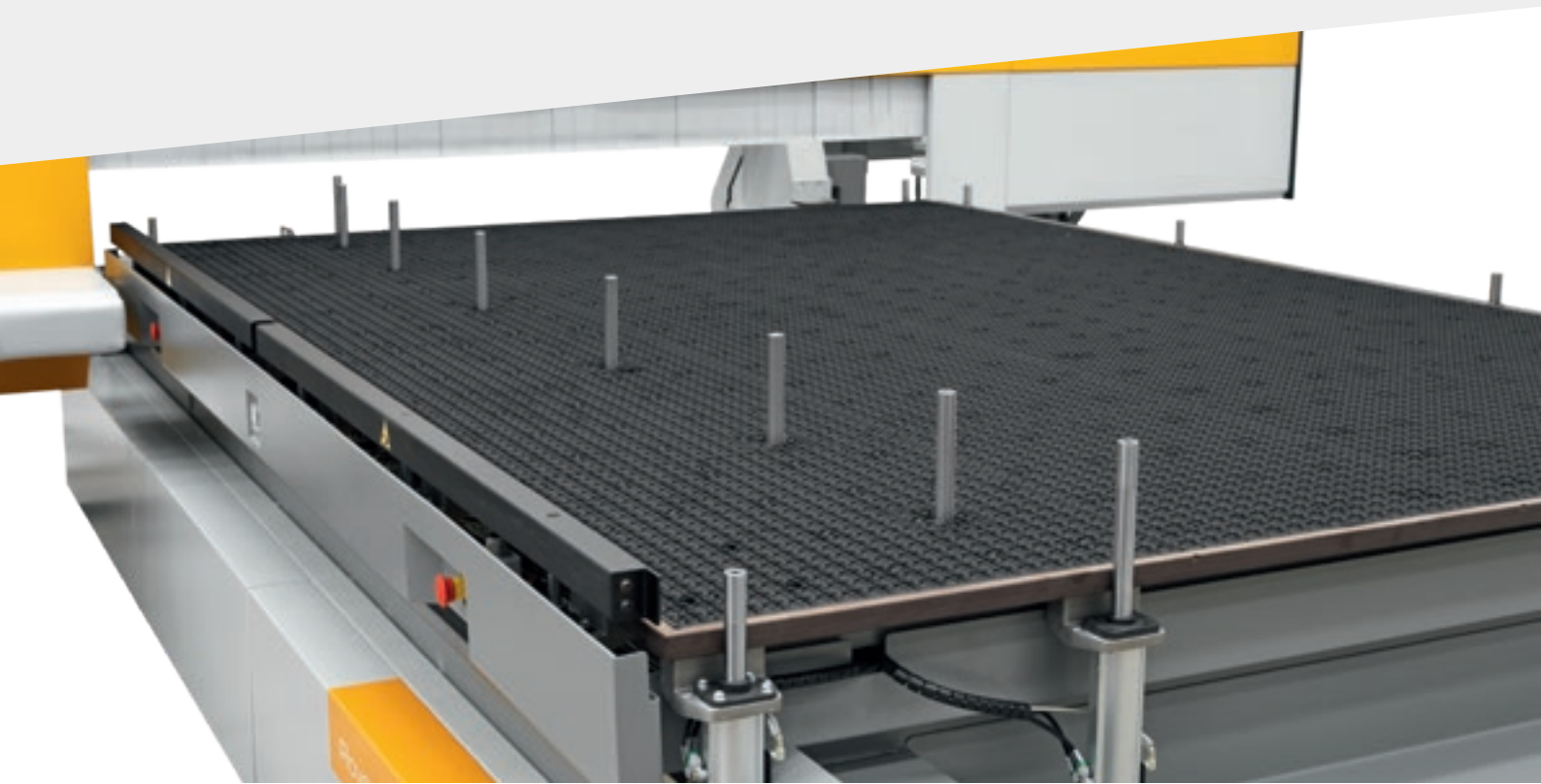
Biesse has two types of work table, based on different technologies depending on the application and the customer's end product: FT PLUS and HFT.



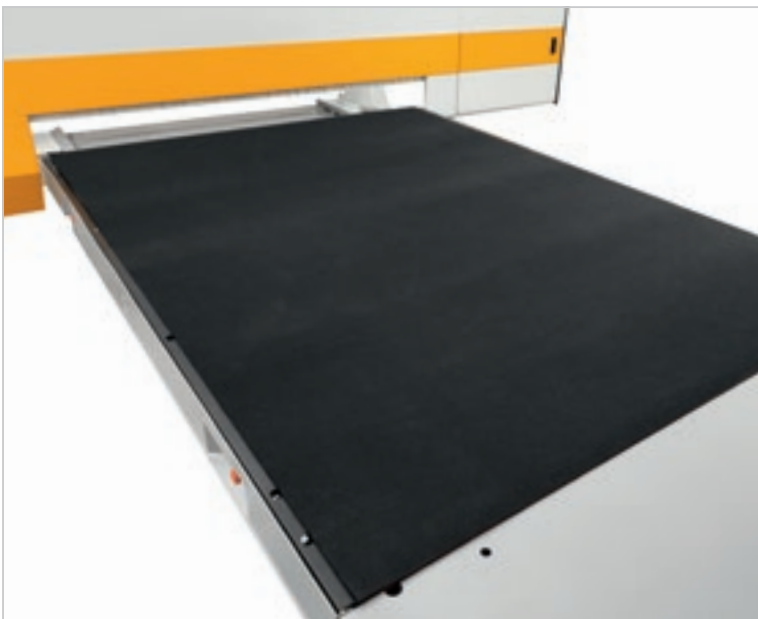
FT PLUS
Allows Uniclamps to be used to clamp complex, small materials in place. The extensiveness and increase in payload provide maximum flexibility across machining operations.



HFT (HIGH FLOW TABLE)
Inspired by the experience of our customers. The high vacuum flow rate renders the work table ideal for machining operations on sheets with automatic loading and unloading.



Linear and central stops give maximum precision and greater flexibility even for small pieces.



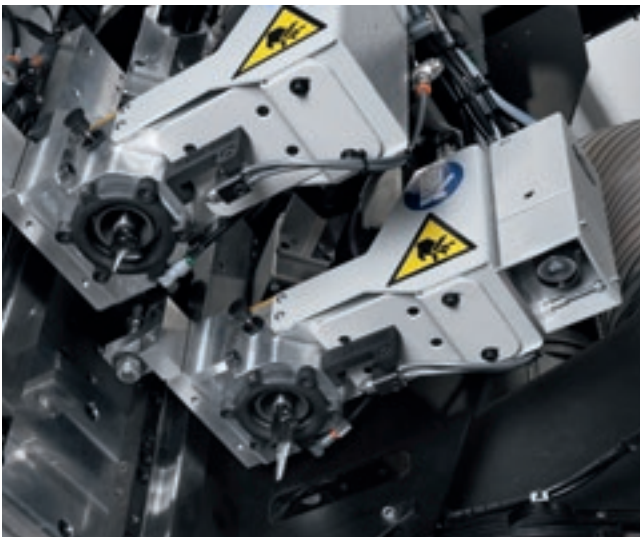
Breathable felt base for cutting with oscillating or tangential blade.

PROCESSING FLEXIBILITY

The machine can be equipped with cutting units with different types of blade and geometry, to meet every type of requirement.

The machine can be fitted with **two cutting units**, guaranteeing optimum machining efficiency and the maximum diversification of the possible applications. The titanium components in the cutting unit guarantee long term life, reliability and quality.

The cutting unit can also house the **video camera for the optical recognition of the print markers**, which is a particularly useful feature in the graphic sector. The video camera can guide both the cutting units and the electrospindle.



Tool lubrication system for cutters

enables the blade to slide more smoothly in particularly dense or elastic materials, thanks to an air-oil nebulisation system that guarantees tool lubrication during the cutting operation.



Extremely quick and simple blade changes

The operator can make a blade change in just a few steps, limiting the machine downtime.



Blower device for cutting units

reduces blade overheating and hence the risk of damage to certain types of material, at the same time keeping the cutting area clean and free of dust and other machining waste.

COMPLETE DEVICE KIT FOR CUTTING UNITS WITH PLUG & PLAY REPLACEMENT



33-place chain magazine.



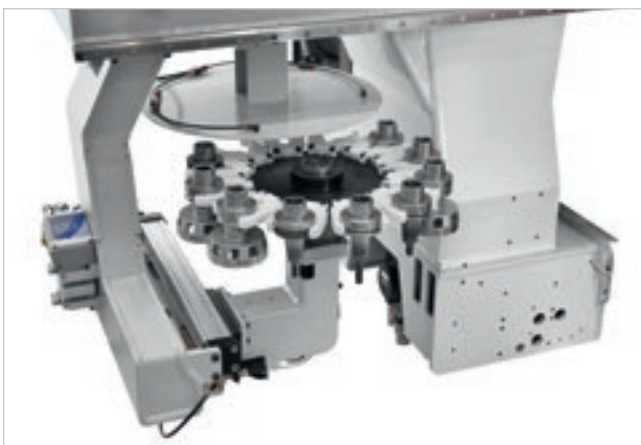
New tool magazine with 18 places: spacious and fast, for those wanting to try out different products with the 5-axis unit.



The contact pre-setter automatically measures the length of tools up to 130 mm in diameter. This greatly reduces the machine tooling time and eliminates any risk of mistakes by the operator.



8-place revolver magazine.



Revolver magazine with 12 places on the head and 12 on the X carriage, reducing cycle times to the minimum.

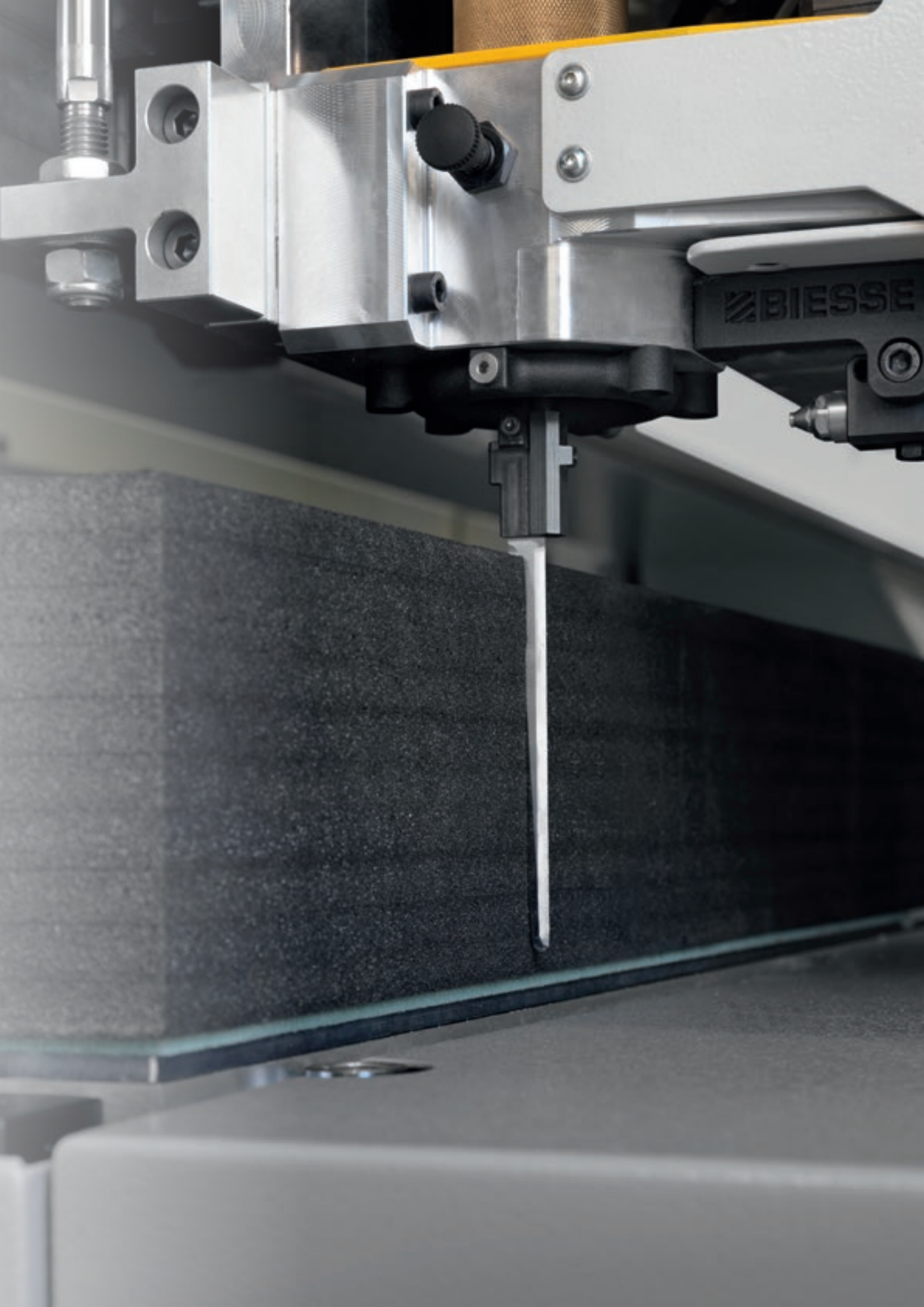
TECH NOLOGY



PERFORMANCE WITHOUT LIMITS

The high technological content of the world's most popular machining centres meets the requirements of operators who process technological materials.

The only solution for performing milling and cutting operations on technological materials. The tangential/oscillating blade, combined with the video camera for the optic recognition of the print markers, makes the machine more versatile so it can adapt to every market requirement. The precision and quality of Rover's technology support the perfect execution of all machining operations typical of a processing centre.

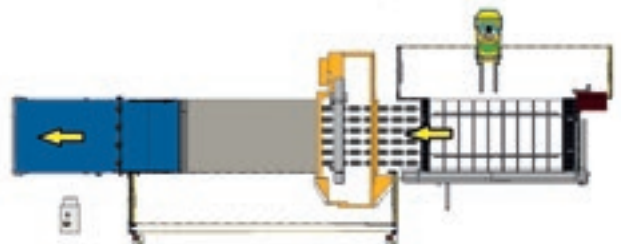
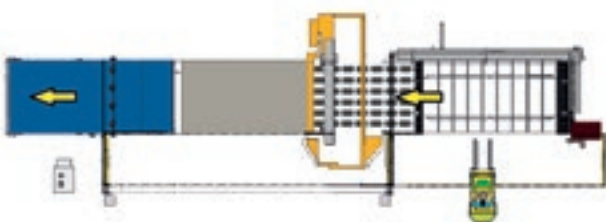
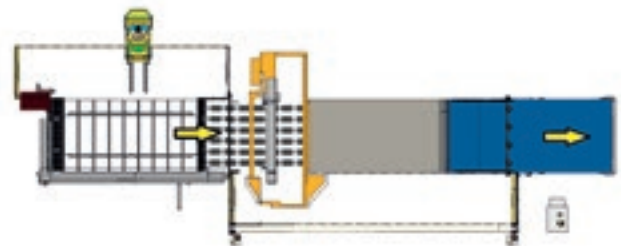
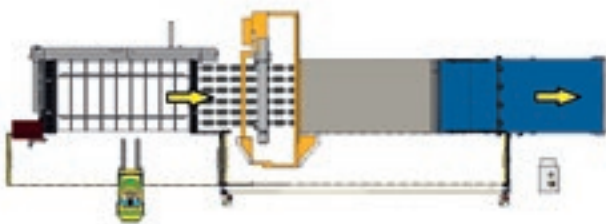


FULLY INTEGRATED INTO A WORKING CELL

Rover Plast B FT can be adapted according to work flow and in line with customer requirements.

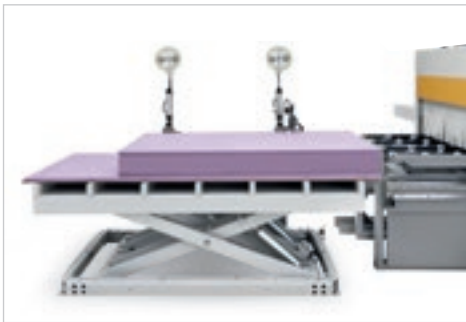


Loading/unloading operations are carried out simultaneously, allowing the operator to remove completed components from the unloading station in the utmost safety whilst the machine is already processing the next material.

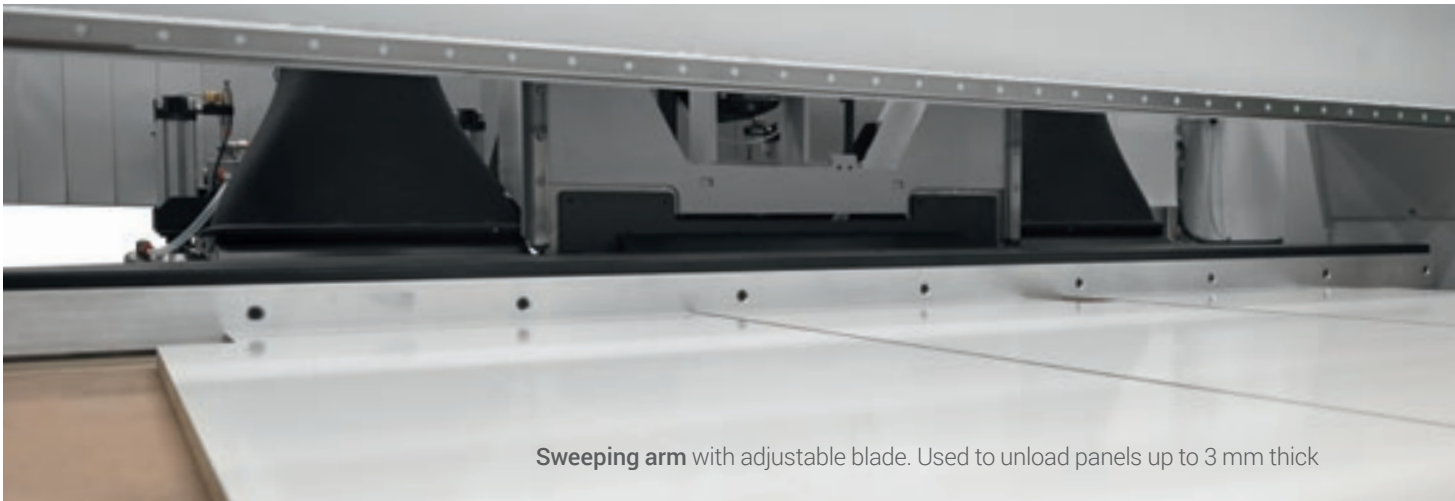


LOADING AND UNLOADING SOLUTIONS

PANEL LOADING SYSTEM WITH SCISSOR LIFT AND AUTOMATIC PANEL ALIGNMENT.



Panel loading system with scissor lift and automatic panel alignment. The loading pallet positioned close to the machine ensures the overall dimensions on the ground remain compact.

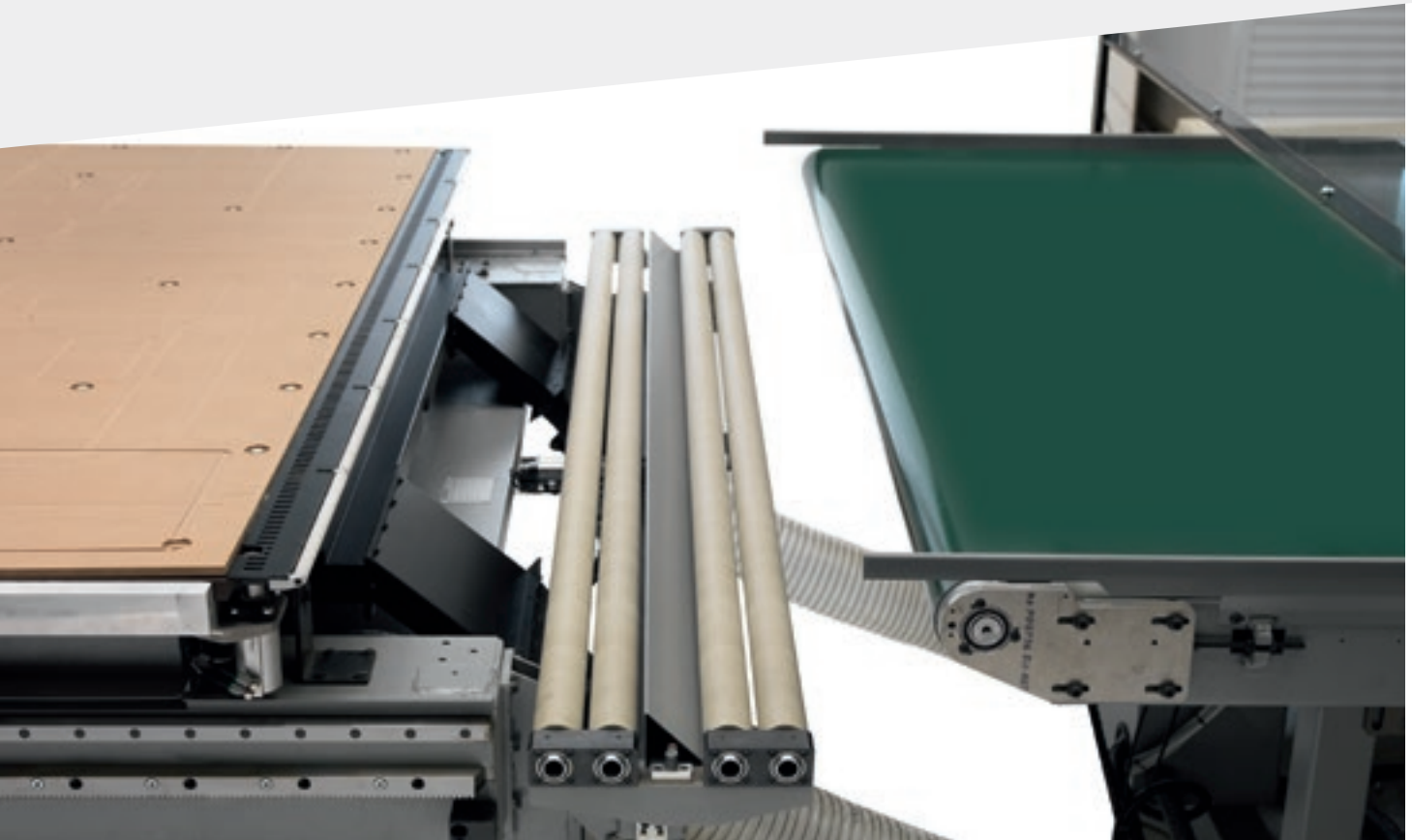


Sweeping arm with adjustable blade. Used to unload panels up to 3 mm thick



The separation systems can manage loads of breathable materials

INCREASING MANUFACTURING CAPACITY



The roller presser allows the machining of books of breathable materials with overlapping sheets. Thanks to its compatibility with all the twin unit configurations too, production capacity can be extended enormously.



The loop presser supports the machining of warped and overlapping panels of breathable material, or those with a high level of friction, by applying pressure to the upper surface of the panel.



Biesse boasts extensive experience in the machining of breathable materials arranged in overlapping sheets.



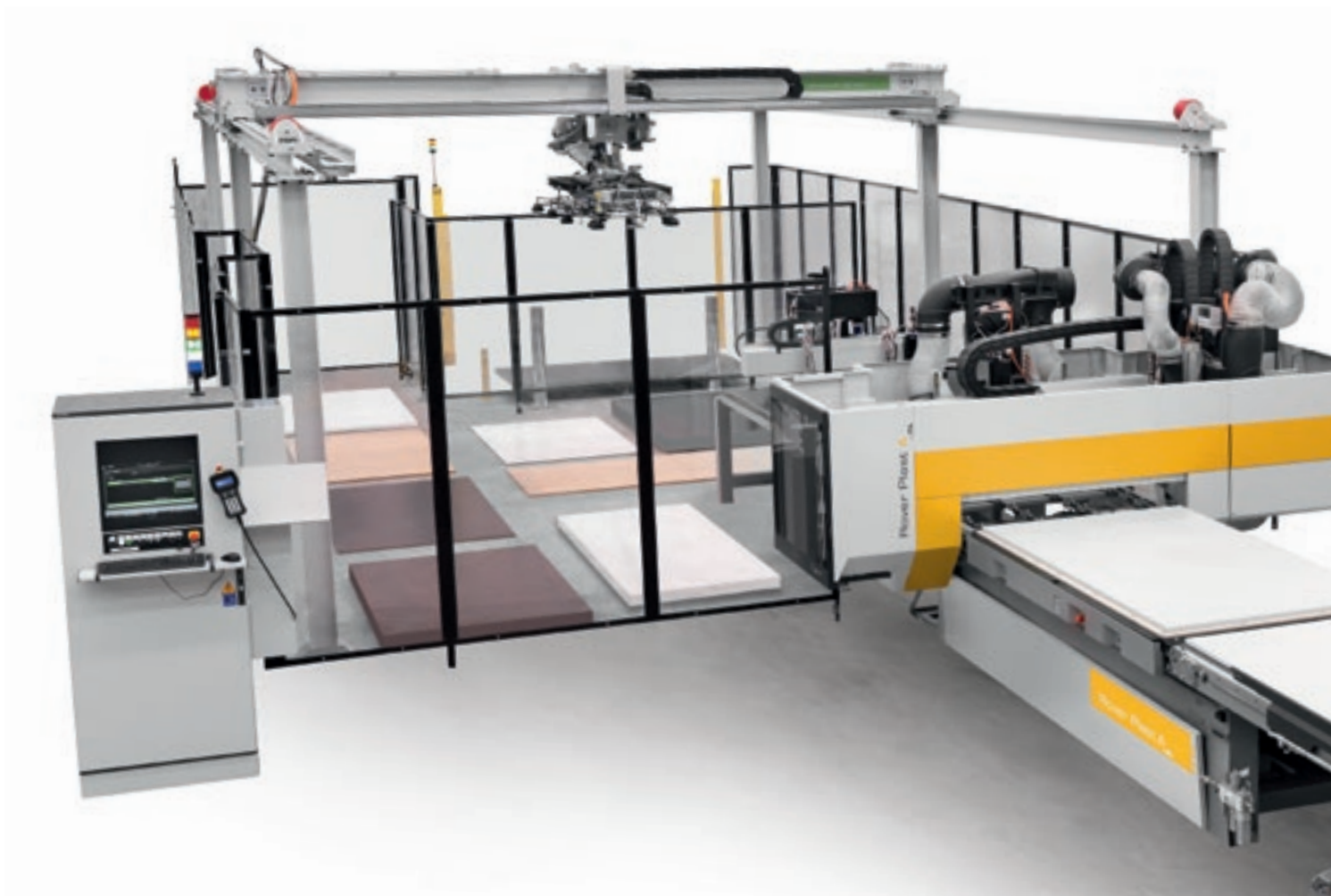
Rover Plast B FT can be perfectly integrated in a line with robots (ROS) and loading/unloading systems. The ROS robotised solutions ensure a marked increase in production and total reliability of both the production process and the loading/unloading operations, even in a wider context of industrial automation.



**INCREASED
PRODUCTIVITY
AND REDUCED
PRODUCTION COSTS,
THANKS TO:**

- The possibility of working with twin stations, with piece loading and unloading while the machine is running
- Reduced working time for the operator
- Simplification of work for the operator
- Machining operations that require no supervision and have no time limits (24/7).

LEAN, EFFICIENT PRODUCTION FLOWS



Winstore is an automated magazine for the optimised management of sheets 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** ensures that the materials 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 materials



PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

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. The wide hatch provides maximum visibility of the machining operations, as well as ensuring easy access to the working units.



22 strati sovrapposti di bandelle mobili laterali a protezione del gruppo operatore, per lavorare a massima velocità in totale sicurezza.

LED bar with 5 colours

indicating the machine status in real time, allowing the operator to check the machine status at any point.



THE MOST ADVANCED TECHNOLOGY CLOSE AT HAND

bTouch is an optional feature that can be purchased after purchase of the machine to enhance the functionality and the usage of the technology available.

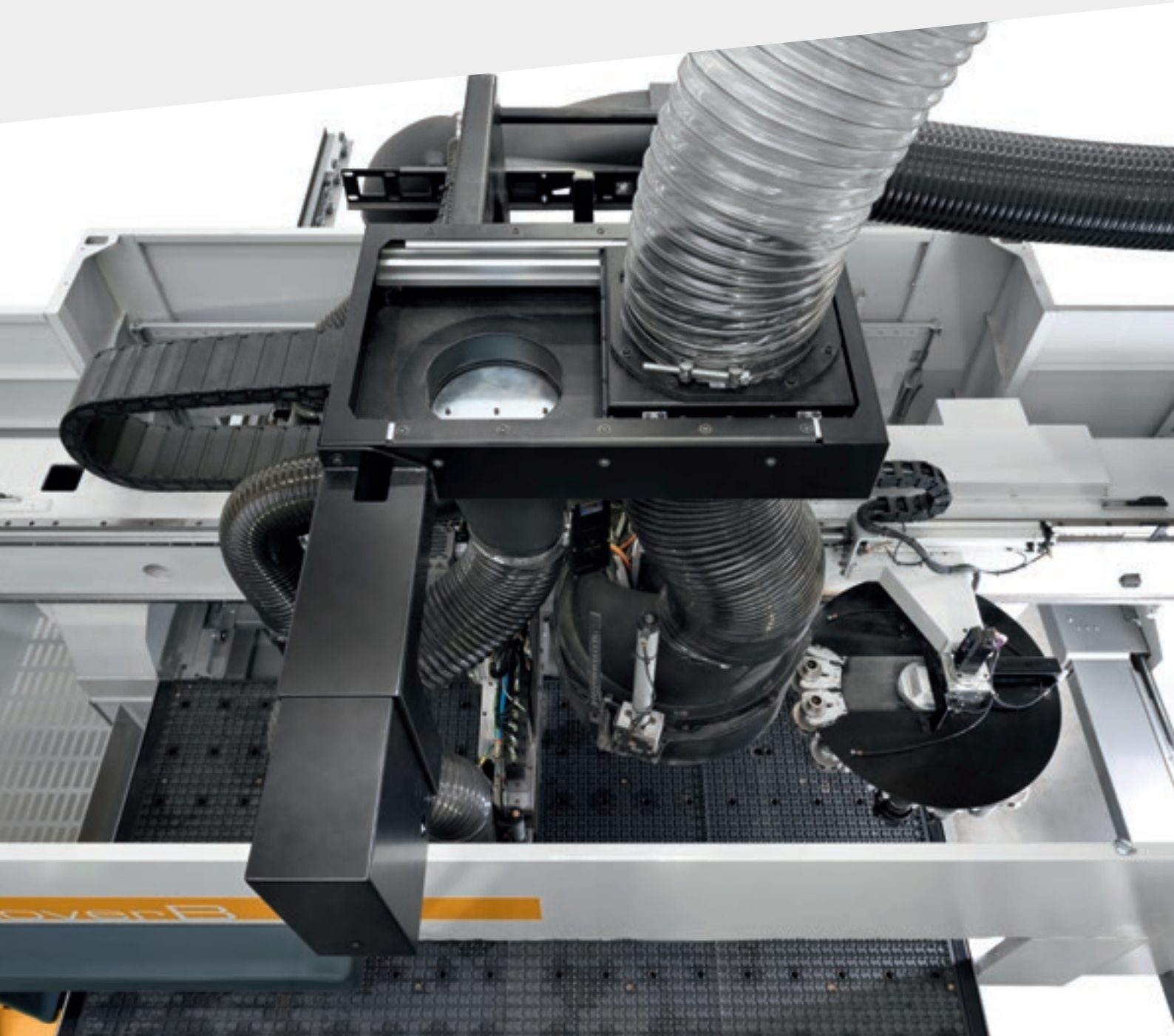


bTouch is the new 21.5" touch screen which enables you to carry out all of the functions previously performed using the mouse and the keyboard, enhancing the direct interaction between the user and the device.

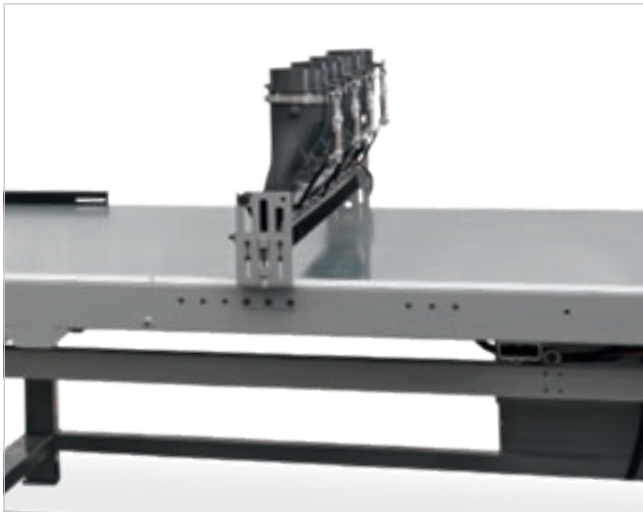
Perfectly integrated with the B_SUITE 3.0 interface (and with later versions) and optimised for touch, this solution is incredibly simple, and makes the best possible use of the Biesse software functions installed on the machine. The screen has a maximum resolution of 1920 x 1080 (Full HD) at 60 Hz. Specifically, you can:

- ✔ create any CAD programme (including parametric programmes), with layouts and machining operations
- ✔ move, rotate and increase the size of objects (panel, NC machine, tool etc.) present within the CAD/CAM area
- ✔ quickly and simply complete warehouse tooling, by dragging the tools into their designated places
- ✔ prepare the machine for the correct positioning of the panel (machine set-up), moving tables and carriages into the desired position
- ✔ send a programme machining list, change the parameters and send it to the NC machine for processing, manage all the controls present in soft-console
- ✔ manage all of the soft-console controls

EFFICIENT SOLUTIONS FOR A FLAWLESS FACTORY



Rover Plast B FT has a new suction system on the working units; it's extremely effective and reliable over time, to ensure optimum cleaning of both the product and the surrounding area.



System with 2 to 4 suction hoods positioned above the unloading belt.



Chip removal system positioned between the machine and the unloading belt, guaranteeing optimal sheet cleanliness.



Intake manifold positioned at the end of the belt.



Manifold for frames

An extremely sturdy solution at the end of the belt dedicated to those working with elements in packs and frames.



SOLUTIONS THAT MAKE THE USE OF OUR MACHINES SIMPLER, MORE ERGONOMIC AND MORE EFFICIENT.



SINGLE CONTROL STATION WITH TWIN MONITORS AND LABELLING MACHINE

The machine can be controlled and labels printed (for piece identification) from a single command point. Solution that greatly enhances the machine ergonomics.

PRINTER ON THE MOBILE CONSOLE

The printer is connected directly to the machine PC, and positioned so that everything needed for labelling.

Biesse has developed a series of solutions that help the operator in the various work phases, making daily tasks easier. myVA is a virtual assistant for every operator.



WEARABLE BAR CODE AND QR SCANNER

Used to upload programs in the work list, reading the information given on the label and activating the subsequent machining phases. QR codes or bar codes are read quickly and accurately, leaving the operator's hands free (unlike the classic scanner).

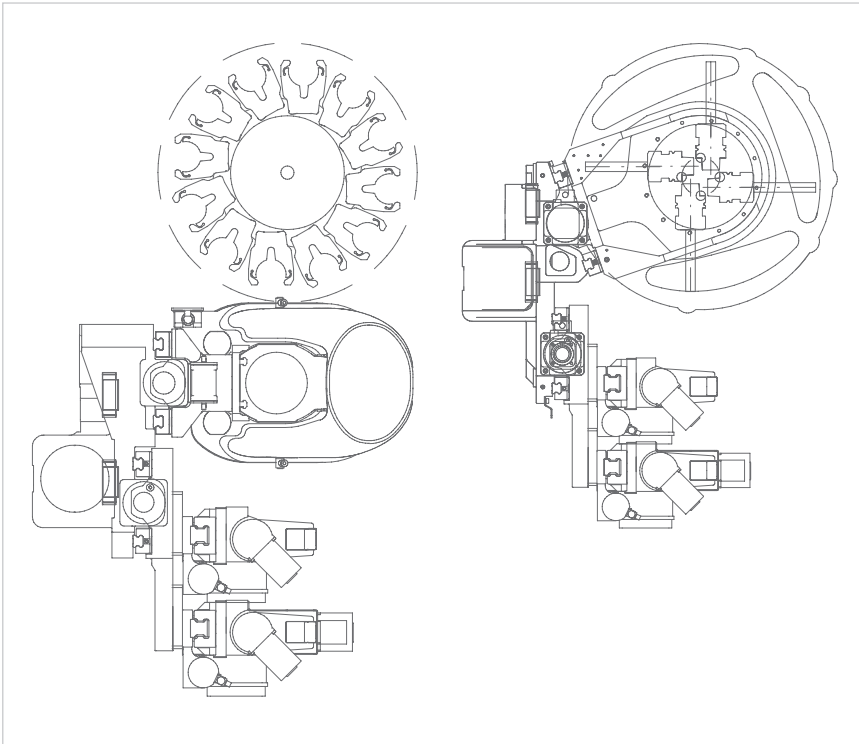


LED PROJECTOR FOR TOOLING THE WORK TABLE

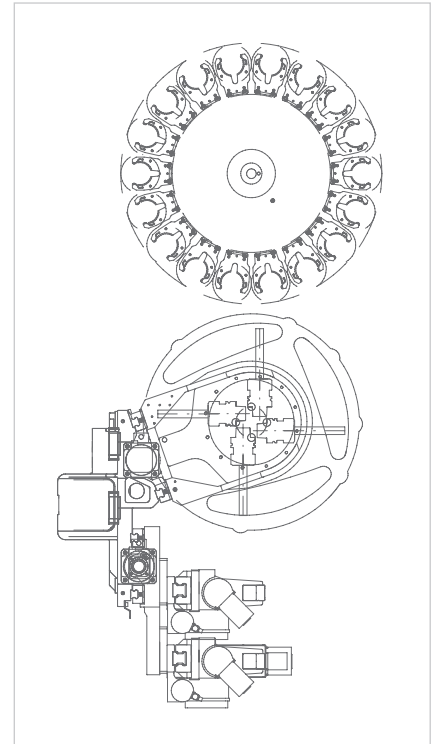
The LED projector is used to identify the correct position of the vacuum modules on the work table, showing how they rotate as well. This solution saves on work area tooling time, and reduces the risk of mistakes by the operator.

CONFIGURATION

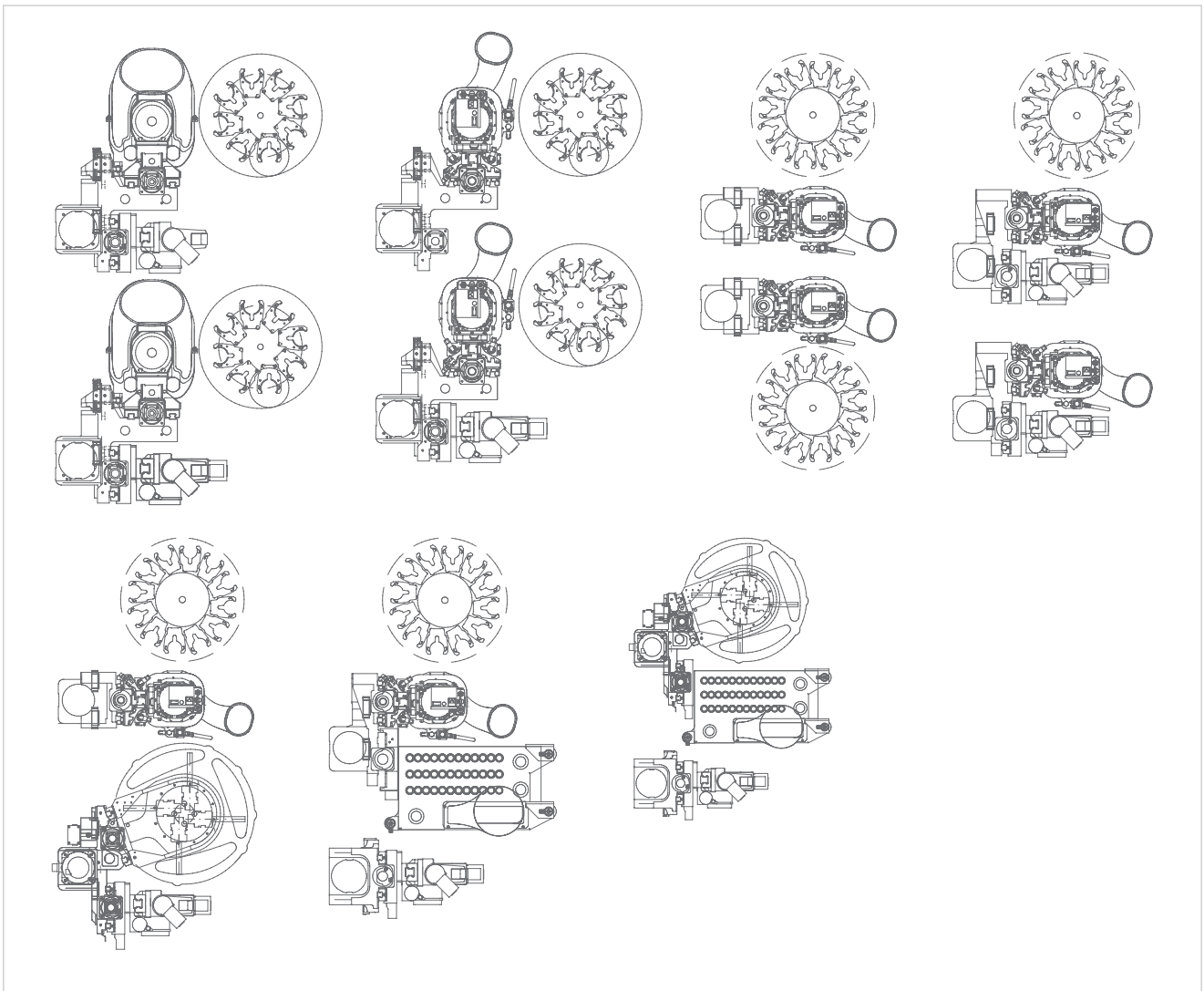
▸ SINGLE CARRIAGE SHORT BEAM



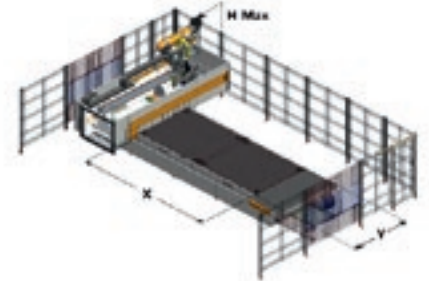
▸ SINGLE CARRIAGE LONG BEAM



▸ TWIN CARRIAGE
LONG BEAM



TECHNICAL SPECIFICATIONS



WORKING FIELDS AND HEIGHT Z

	X	Y	Z	H	H max
	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch
Rover Plast B FT 1531	3100/122	1560/61	250/10	1980/78	2770/109
Rover Plast B FT 1536	3765/148	1560/61	250/10	1980/78	2770/109
Rover Plast B FT 1564	6450/254	1560/61	250/10	1980/78	2770/109
Rover Plast B FT 1836	3765/148	1875/74	250/10	1980/78	2770/109
Rover Plast B FT 2231	3100/122	2205/87	250/10	1980/78	2770/109
Rover Plast B FT 2243	4300/169	2205/87	250/10	1980/78	2770/109
Rover Plast B FT 2264	6450/254	2205/87	250/10	1980/78	2770/109

SPEED

	X	Y	Z	Vector
m/min - ft/min	85 - 279	85 - 279	35 - 115	120 - 394



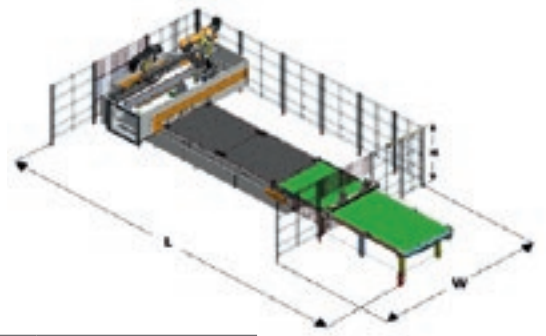
DIMENSIONS

CONFIGURATION	L		W	
	Single carriage	Twin carriage	Single carriage	Twin carriage
	mm/inch	mm/inch	mm/inch	mm/inch
Rover Plast B FT 1531	7468/294	-	5463/215	-
Rover Plast B FT 1536	8128/320	8100/319	5470/215	5785/228
Rover Plast B FT 1564	10820/426	-	5470/215	-
Rover Plast B FT 1836	8130/320	-	5780/228	-
Rover Plast B FT 2231	7470/294	7420/292	6180/243	6530/257
Rover Plast B FT 2243	8680/342	8610/339	6180/243	6530/257
Rover Plast B FT 2264	10820/426	10760/424	6207/244	6550/258

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.

Weighted sound pressure level A in: Operator workstation Lp_{fA} 76 dB (A). Loading/unloading position Lp_{fA} 72 dB (A). Uncertainty factor K = 4 dB (A). Operating conditions: milling operations at a speed of 20 m/min, 20000 rpm.

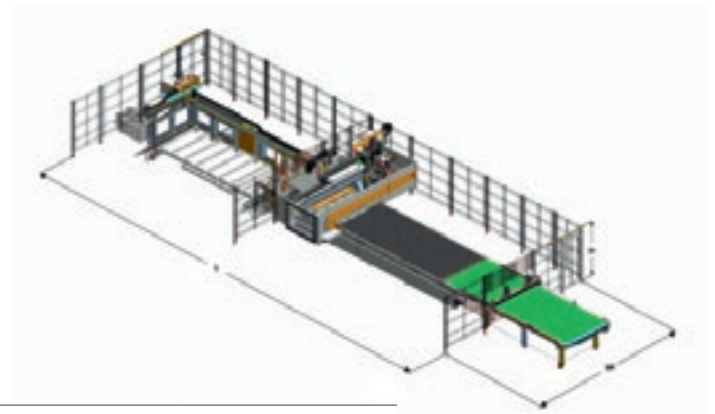
The measurement was carried out in compliance with UNI EN ISO 3746, UNI EN ISO 11202, UNI EN 848-3 and subsequent modifications. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Even though there is a relation between emission levels and exposure levels, this cannot be used reliably to establish whether further precautions are necessary. The factors determining the noise levels to which the operative personnel are exposed include the length of exposure, the characteristics of the work area, as well as other sources of dust and noise, etc. (i.e. the number of machines and processes concurrently operating in the vicinity). In any case, the information supplied will help the user of the machine to better assess the danger and risks involved.



DIMENSIONS - UNLOADING BELT ONLY

CONFIGURATION	L*		W	
	Single carriage	Twin carriage	Single carriage	Twin carriage
	mm/inch	mm/inch	mm/inch	mm/inch
Rover Plast B FT 1531	9380/369	-	5051/199	-
Rover Plast B FT 1536	10710/422	10700/421	5051/199	5785/228
Rover Plast B FT 1836	10710/422	-	5337/210	-
Rover Plast B FT 2231	9370/369	9360/369	5746/226	6530/257
Rover Plast B FT 2243	11770/463	11750/463	5757/227	6530/257
Rover Plast B FT 2264	15220/599	15210/599	5760/227	6530/257

* The overall dimensions increase by 460 mm when the suction system is installed at the base of the unloading mat with removable grille for overlapping panel.



DIMENSIONS - NESTING CELL TYPE A

CONFIGURATION	L*		W	
	Single carriage	Twin carriage	Single carriage	Twin carriage
	mm/inch	mm/inch	mm/inch	mm/inch
Rover Plast B FT 1531	12150/478	-	5020/198	-
Rover Plast B FT 1536	14106/555	14120/556	5037/198	5780/228
Rover Plast B FT 1836	14103/555	-	5337/210	-
Rover Plast B FT 2231	12140/478	12120/477	5740/226	6530/257
Rover Plast B FT 2243	15650/616	15630/615	5760/227	6530/257
Rover Plast B FT 2264	20460/806	20450/805	5760/227	6530/257

* The overall dimensions increase by 460 mm when the suction system is installed at the base of the unloading mat with removable grille for overlapping panel.

DIMENSIONS - NESTING CELL TYPE B

CONFIGURATION	L*		W	
	Single carriage	Twin carriage	Single carriage	Twin carriage
	mm/inch	mm/inch	mm/inch	mm/inch
Rover Plast B FT 1531	14740/580	-	5050/199	-
Rover Plast B FT 1536	16660/656	16610/654	5080/200	5785/228
Rover Plast B FT 1836	16680/657	-	5313/209	-
Rover Plast B FT 2231	14710/579	14690/578	5460/215	6496/256
Rover Plast B FT 2243	18320/721	18270/719	5460/215	6500/256
Rover Plast B FT 2264	23100/909	23060/908	5460/215	6496/256

* The overall dimensions increase by 460 mm when the suction system is installed at the base of the unloading mat with removable grille for overlapping panel.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE



B_SOLID 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.
- 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.
- Machining operation simulation with a calculation of the execution time.



REDUCED TIME AND WASTE



B_NEST IS THE B_SUITE PLUGIN SPECIFICALLY FOR NESTING OPERATIONS. IT ALLOWS YOU TO ORGANISE YOUR NESTING PROJECTS IN A SIMPLE WAY, REDUCING THE MATERIAL WASTE AND MACHINING TIMES.

- Flexibility with reduced production times and costs.
- Optimisation for every type of product.
- Management of articles, sheets and labels.
- Integration with company software.



MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER

SMART
CONNECTION
Powered by Retuner



SMARTCONNECTION IS A SOFTWARE PACKAGE FOR MANAGING JOB ORDERS WITHIN THE COMPANY - FROM THE GENERATION PHASE TO SCHEDULING AND ACTUAL PRODUCTION START-UP - IN JUST A FEW SIMPLE, INTUITIVE STEPS.

THANKS TO SMARTCONNECTION, THE PRODUCTION SITE MACHINES CAN BE LINKED UP TO TRANSFORM THE COMPANY INTO A 4.0 ENTITY..



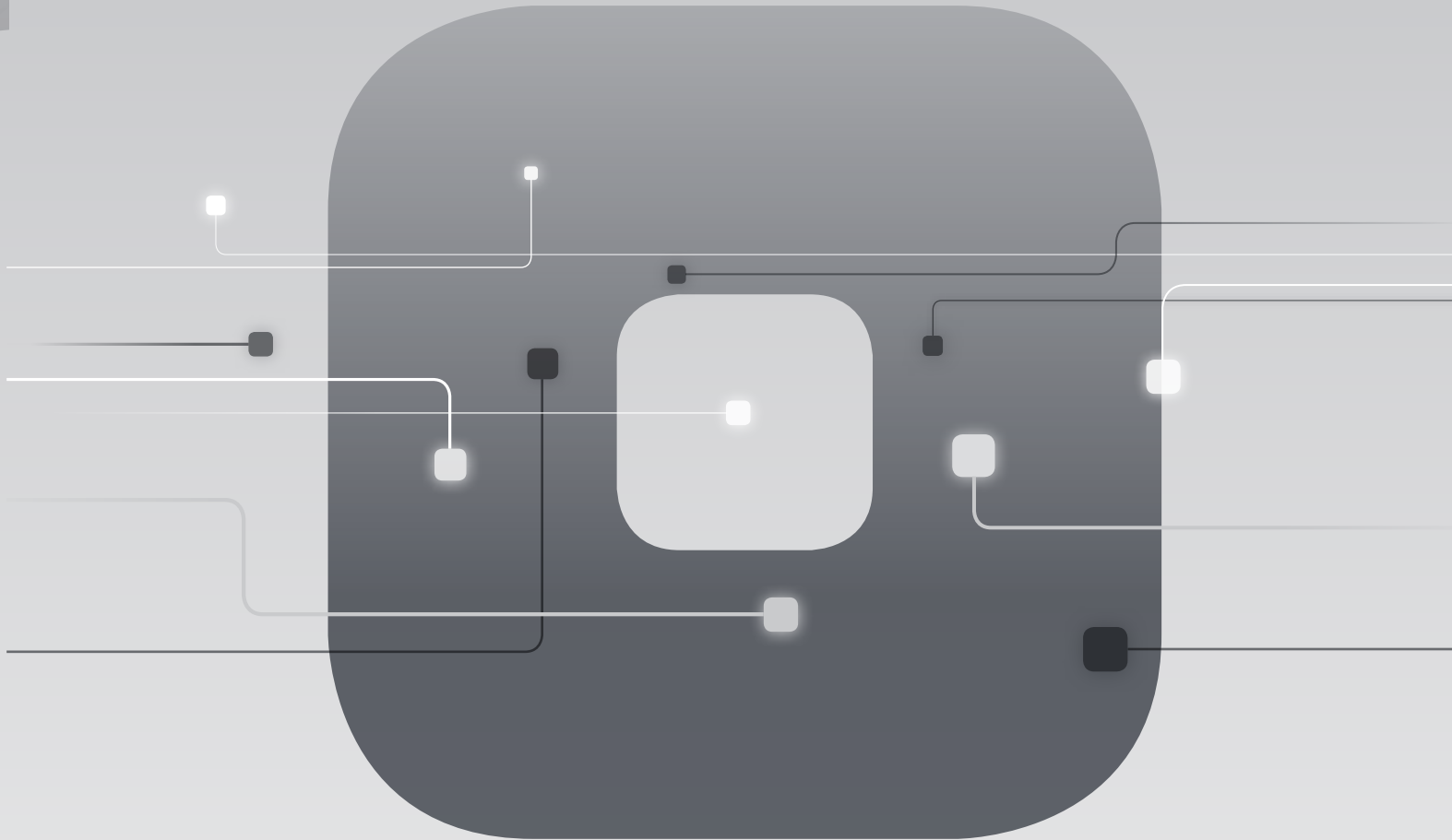
SmartConnection is a web-based solution that can be used by any device.



 Biesse is extending SmartConnection across all geographical areas. To check availability in your country, get in touch with your commercial contact.

SOPHIA

GREATER VALUE FROM MACHINES



The Biesse IoT platform which enables customers to access an extensive range of services to streamline and rationalise their work management processes.

□ SERVICES

□ PROACTIVITY

□ ANALYSIS

in collaboration with

CUSTOMER CARE IS WHO WE ARE

SERVICES is a new experience for our customers, to offer not just excellent technology but the added value of an increasingly direct connection with the company, the professionals who work there and the experience they embody.



ADVANCED DIAGNOSTICS

Digital channels for remote interaction online 24/7. Always ready to intervene on-site seven days a week.



A WORLDWIDE NETWORK

39 branch offices, over 300 certified agents, retailers in 120 countries, and spare parts warehouses in America, Europe and the Far East.



SPARE PARTS AVAILABLE IMMEDIATELY

Identification, shipping and delivery of spare parts for every need.



EVOLVED TRAINING OPPORTUNITIES

Lots of on-site, online and classroom training modules for personalised growth.



VALUABLE SERVICES

A wide range of services and software packages to help our customers achieve continuous improvements in performance.

AN EXCELLENT LEVEL OF SERVICE

+550

HIGHLY SPECIALISED
TECHNICIANS AROUND THE
WORLD, READY TO HELP
CUSTOMERS WITH EVERY
NEED

90%

OF MACHINE DOWN CASES
WITH RESPONSE TIME
UNDER 1 HOUR

+100

EXPERTS IN DIRECT
CONTACT THROUGH
REMOTE CONNECTIONS AND
TELESERVICE

92%

OF SPARE PARTS ORDERS
FOR MACHINE DOWNTIME
PROCESSED WITHIN 24
HOURS

+50.000

ITEMS IN STOCK IN THE
SPARE PARTS WAREHOUSES

+5.000

PREVENTIVE MAINTENANCE
VISITS

80%

OF SUPPORT REQUESTS
SOLVED ONLINE

96%

OF SPARE PARTS ORDERS
DELIVERED IN FULL ON TIME

88%

OF CASES SOLVED WITH THE
FIRST ON-SITE VISIT

MADE WITH BIESSE

CROSA: EVOLVING IN THE FOOD & BEVERAGE SECTOR WITH PRECISION AND VERSATILITY

Crosa has a fifty-year history in the distribution of industrial technical components and is known for its high quality service. The company from Piedmont is constantly growing and innovating and is a strategic partner in various industrial manufacturing settings, especially the food, beverages and packaging sector. At the dawn of the new millennium, it transitioned from being a parts dealer for cars to selling industrial components. In 2008 the company inaugurated a new machining operations department dedicated to plastics: a new business and the beginning of a long-term partnership with Biesse. "These days CROSA mainly operates as a sales company, but that's not all we are. We also have a manufacturing unit dedicated to the production of plastics for the mechanical sector, and the food & beverage sector accounts for 90% of our activities," explained CROSA owner Giovanni Sartore. The company purchased two Biesse machines in 2018: a 3-axis

machining centre, the Rover Plast A FT, and a 5-axis machining centre, the Materia CL. "Purchasing these machines boosted our machining quality and our ability to respond to the needs of our customers. Thanks to these technologies, we've been able to raise the level of complexity of the components we make", Sartore continued.

Precision machining, versatility and the capacity to cover every step in the creation of industrial technical components are some of the main advantages offered by the two Biesse machining centres. "We can guarantee the following machining phases for our customers: supplying the raw materials, supplying cut materials and supplying items processed from sheets of raw material. More specifically, thanks to the Rover Plast A FT we can obtain advanced nesting, while our pride and joy, the Materia CL, has opened us up to the processing of advanced materials, especially for the food sector", explained

Lorenzo, CROSA Production Manager. The company provides precise machining, milling and tapping for components used in the food & beverage sector. "Ever since we started using the Biesse machines, we've been able to offer higher quality and greater flexibility for our customers", Lorenzo stated in closing. The industrial technical parts sector is full of challenges and opportunities: the production of complex industrial parts requires ultimate precision, a distinctive trait of Biesse technology. "By opting for Biesse machining centres, we've introduced extremely innovative technology that allows us to satisfy requests entailing the machining of parts with complex shapes, sizes and materials, ensuring elevated precision, quality and reliability for our customers. I consider Biesse a partner for the coming future. The challenges will be increasingly complex, but I believe we'll have no trouble rising to the occasion together", Sartore concluded.



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