

# RO VER A16

CNC MACHINING CENTRE



# A SINGLE PROCESSING CENTRE FOR ALL TYPES OF MACHINING OPERATIONS

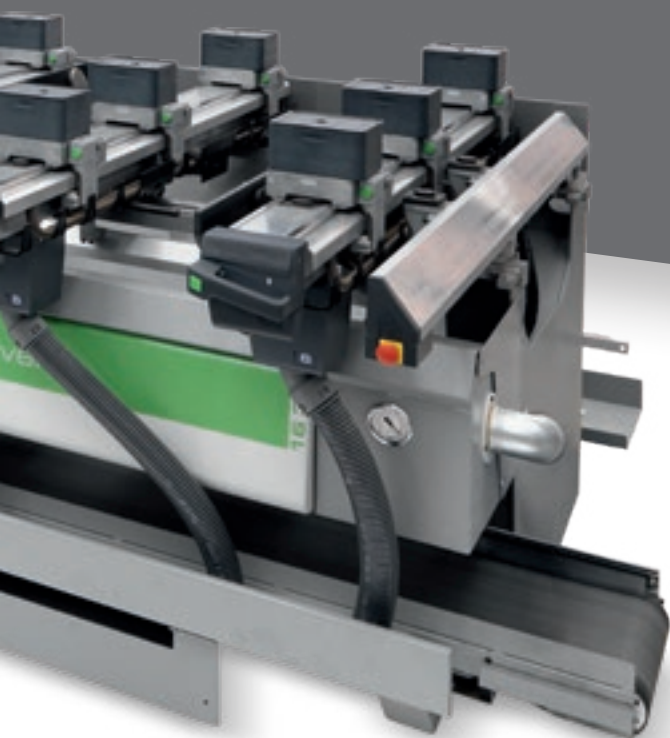


## THE MARKET EXPECTS

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 RESPONDS

with **technological solutions** that influence and support technical expertise as well as process and material knowledge. **Rover A 16** is the CNC machining centre for the manufacturing of furniture and window/door frames. Thanks to its comprehensive range of sizes and configurations, it is ideally suited to small and large joineries that need to manufacture either odd-sized products or standard products in small batches.



## **ROVER A 16**

- ✓ MACHINE CUSTOMISATION  
DEPENDING ON DIFFERENT  
PRODUCTION REQUIREMENTS
- ✓ HIGH FINISH QUALITY
- ✓ REDUCED TOOL CHANGEOVER TIME
- ✓ ABILITY TO PROCESS LARGE SIZES
- ✓ HIGH-TECH BECOMES ACCESSIBLE  
AND INTUITIVE
- ✓ AUTOMATIC FEED  
WITH NO OPERATOR INPUT

# MACHINE CUSTOMISATION DEPENDING ON DIFFERENT PRODUCTION REQUIREMENTS



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

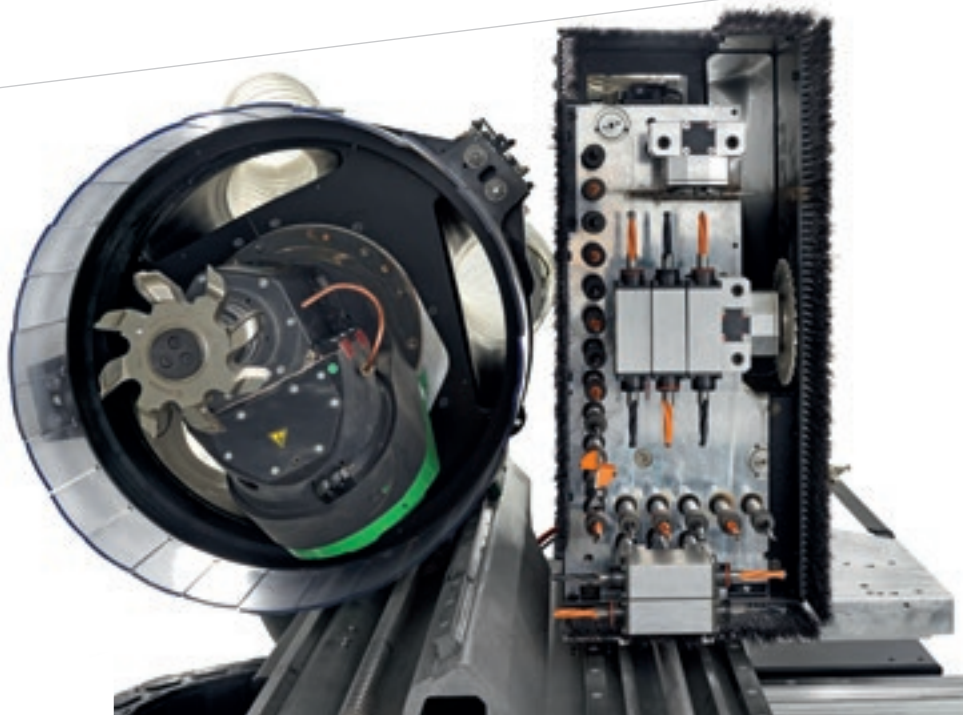
## TECHNOLOGY BASED ON 5 INTERPOLATING AXES WITH CONTINUOUS ROTATION



The continuous rotation of the B and C axes (made possible by the technologically advanced components) guarantees the maximum machining speed and optimum finished product quality.



# HIGH PRECISION AND RELIABILITY OVER TIME



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



The new BHZ 29 2L boring head is equipped with automatic lubrication and a highly efficient rigid suction cap for a cleaner environment. It's liquid-cooled for maximum precision.



Automatic lubrication boring head BHZ 29 2L.



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

# HIGH PRECISION AND RELIABILITY OVER TIME

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



### Hyperclamps

with quick release for firm, precise locking.



### Uniclamps

with quick pneumatic release.



### SA (Set Up Assistance)

For the quick, easy and controlled manual positioning of the clamping systems. The linear sensors in the work table, along with the collision control function, reduce the risk of collisions

**ATS (Advanced Table-Setting System)**  
For the quick and easy manual positioning of the clamping systems.



### EPS (Electronic Positioning System)

Supports the automatic rapid re-configuration of the entire work area. Positions work tables and carriages by means of separate engines, i.e. without engaging the operating section. The positioning of an area's work tables and carriages is performed during machining, whilst the machine is working on the opposite area.



### FPS (Feedback positioning system)

evolution of the EPS system, with the addition of linear sensors that indicate the position of the carriages in real time, reducing the time needed to position them.



### Easy Zone

Supplementary vacuum system for the quick and easy clamping of several elements on the machine.



# 5 AXIS

## USER-FRIENDLY TECHNOLOGY

The high technological content of the world's most popular machining centres, meets the requirements of wood industry professionals.

The 5-axis operating head, equipped with up to 16.5 kW HSD spindle and with 360° continuous rotation on the vertical and horizontal axes, enables the machining of complex-shapes ensuring quality, precision and absolute long term reliability.

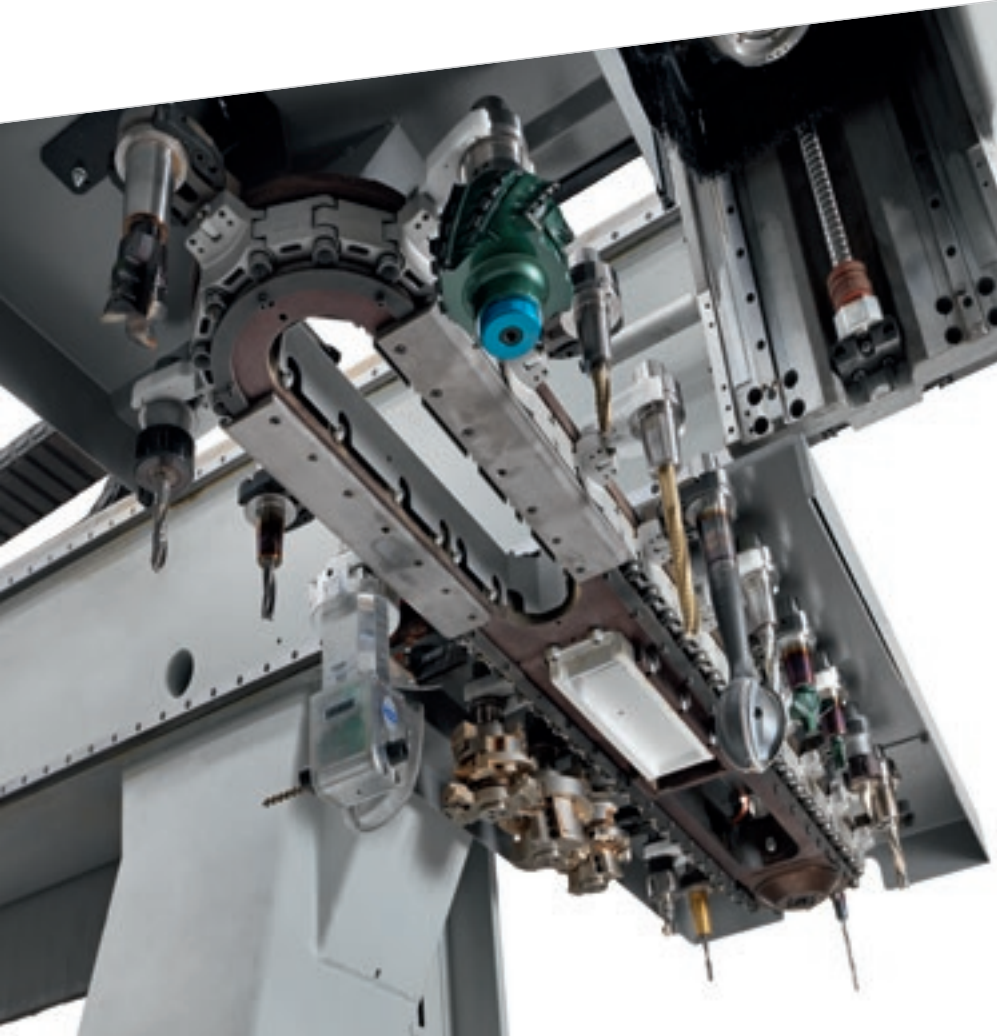






# REDUCED TOOL CHANGEOVER TIME

The machine can house up to 45 aggregates and tools



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 at machine side.



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



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

# OPTIMAL CLEANING OF MACHINED PIECE AND WORK AREA



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



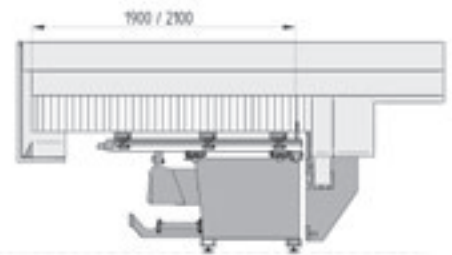
**NC-controlled deflector**  
(chip conveyor).



**Adjustable suction hood**  
up to 12 settings.

# ABILITY TO PROCESS LARGE SIZES

The open front cowl supports the loading of very-large sizes (up to 2,100 mm in y direction) onto the machine, thus enabling the pre-sectioning phase to be skipped or machining operations to be performed for non-standard productions.



A comprehensive range of sizes to machine panels of all sizes, from which users can choose the most suitable one.

- ▾ Rover A 1632
- ▾ Rover A 1643
- ▾ Rover A 1659



The 245mm piece passage makes Rover A extremely flexible and able to process even considerably thick pieces.

## CFT: TWO MACHINES IN ONE



The full functionality and quality of a true pantograph table is guaranteed by the **CFT (Convertible Flat Table)**, which allows for the machining of thin panels, nesting and folding on a machine equipped with a roller bar table.



# MAXIMUM OPERATOR SAFETY

Safety and flexibility thanks to the new bumpers which, combined with the photocells, ensure a dynamic pendular system with no footprint.



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



Perimeter guards with front access door.



**Remote control panel** for direct and immediate operator control.



Overlapping lateral curtain guards protect the working unit.

## MAXIMUM VISIBILITY OF THE WORKING UNIT TO WORK IN COMPLETE SAFETY

**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.**

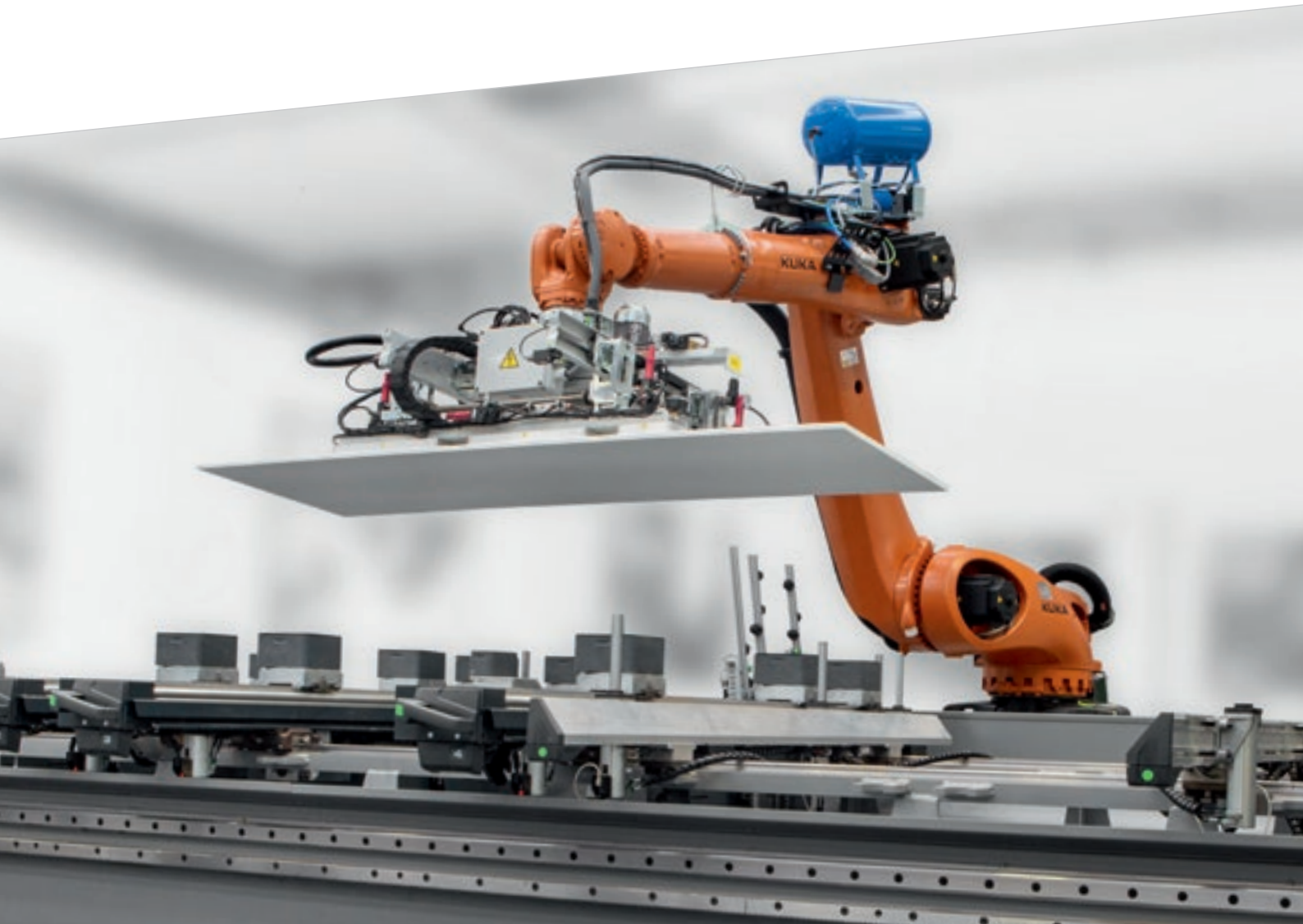
Perfectly integrated with the B\_SUITE 3.0 interface (and with later versions) and optimised for touch, this solution is incredibly simple, and makes the best possible use of the Biesse software functions installed on the machine. The screen has a maximum resolution of 1920 x 1080 (Full HD) at 60 Hz.

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



# EFFICIENT PRODUCTION, WITH NO LIMITS



Rover range can be perfectly integrated in a line with robots (ROS) and loading/unloading systems. It's the ideal solution for those who need automated solutions for producing large batches.

## 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)

# IDENTITY

## PRACTICAL DESIGN

**An innovative yet simple design is the hallmark of Biesse's distinctive identity.**

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.

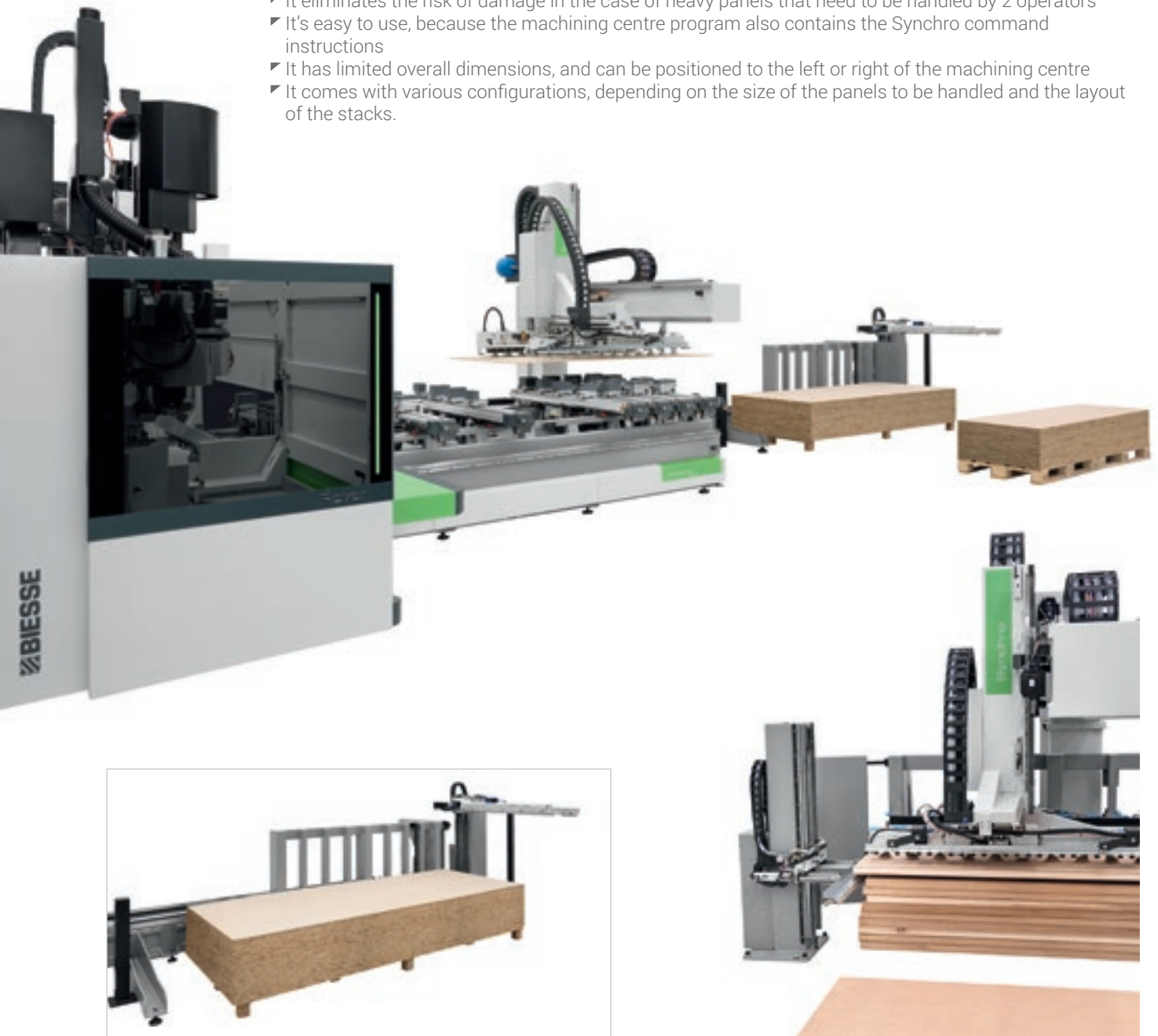
A close-up photograph of the Rover logo, which is a silver, three-dimensional emblem with the word "ROVER" in a stylized, blocky font. The logo is mounted on a dark, textured surface. In the background, a vertical green light strip is visible, creating a modern and high-tech atmosphere. The lighting is dramatic, highlighting the metallic sheen of the logo and the texture of the surface.

ROVER

# LOADING AND UNLOADING SOLUTIONS

Synchro is a loading/unloading device that transforms the Rover machining centre into an automatic cell for producing a stack of panels autonomously (without the need for an operator):

- ▶ It eliminates the risk of damage in the case of heavy panels that need to be handled by 2 operators
- ▶ It's easy to use, because the machining centre program also contains the Synchro command instructions
- ▶ It has limited overall dimensions, and can be positioned to the left or right of the machining centre
- ▶ It comes with various configurations, depending on the size of the panels to be handled and the layout of the stacks.



## Mechanical detacher

Increases the reliability and repeatability of the automatic functioning cycle of the cell, compensating for the lack of alignment of the panels in the stack. It consists of a central or lateral mobile stop equipped with blowers to allow for the separation of the panels in the stack.

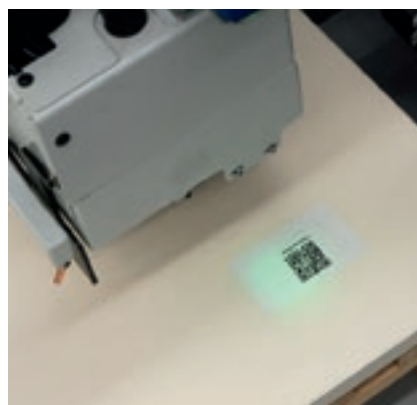
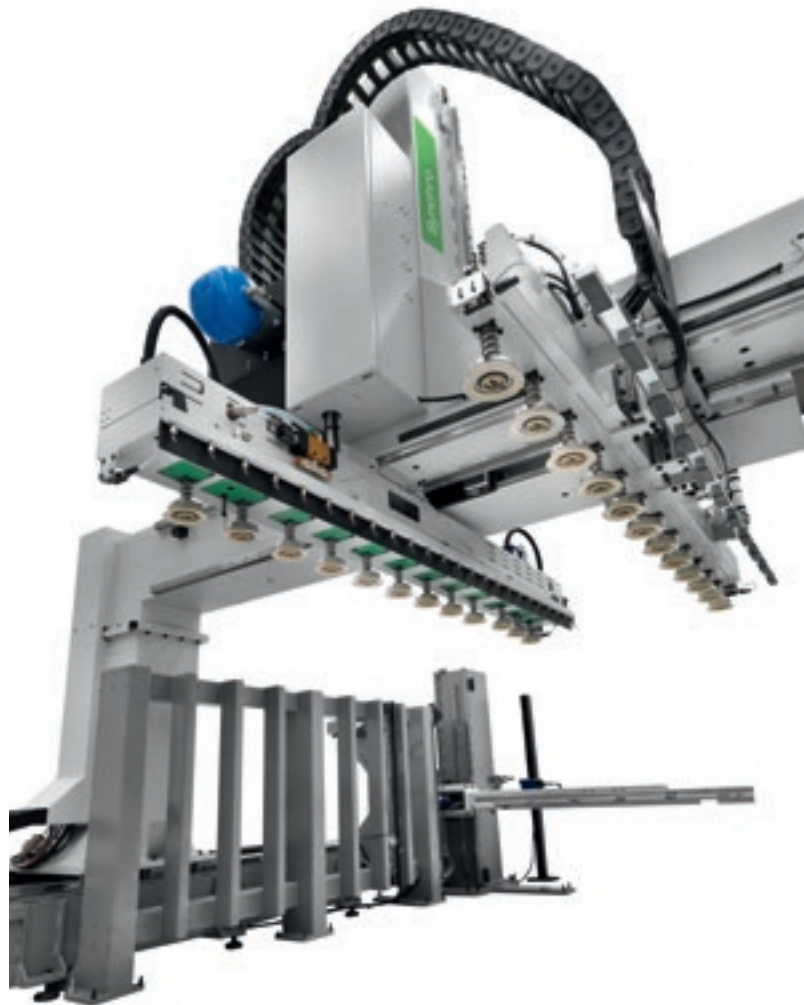
Automated cell for machining a batch of panels or doors.

Synchro can also machine stacks of different-sized panels, thanks to stack reference device and the panel pre-alignment cycle, which is performed while the machine is running, while the Rover machining centre processes the previous panel.

**Panel pick-up device with automatic positioning of the suction cup holder rods**

In accordance with the size of the panel to be picked up:

- No operator intervention is required to attach or remove the suction cup holder rods
- Idle time during format change operations is dramatically reduced
- The risk of collisions caused by incorrect tooling operations is reduced.
- Available in multi-zone mode with independent activation of the suction cups
- The suction cups can be configured with internal blowing to manage porous materials

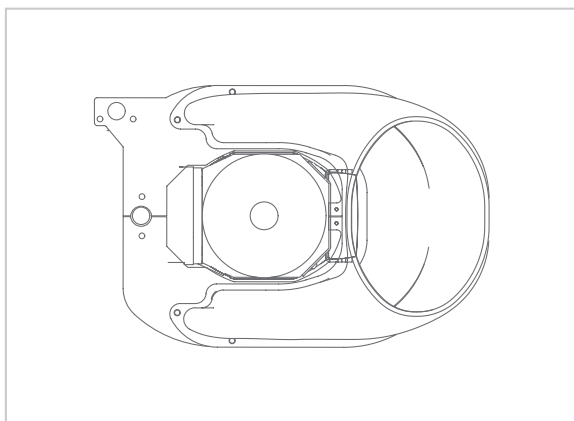


Two types of **bar code readers** are available for reading the bar codes on the top face and on the side face of the panel. These can be used to load the proper machining programme list avoiding operator error.

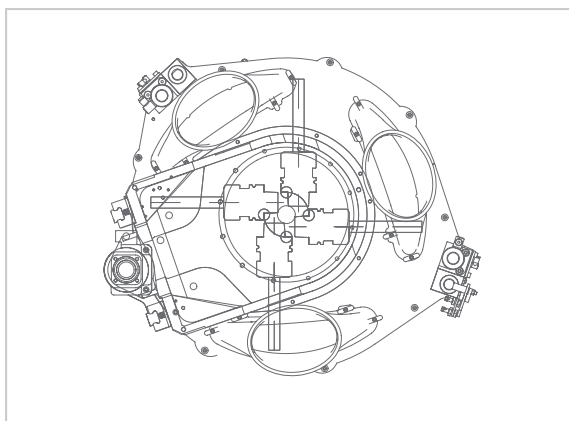
Dedicated configuration for the simultaneous loading/unloading of 2 panels, to maximise machining centre productivity:

- 0 operators
- 1 machining program
- 2 panels

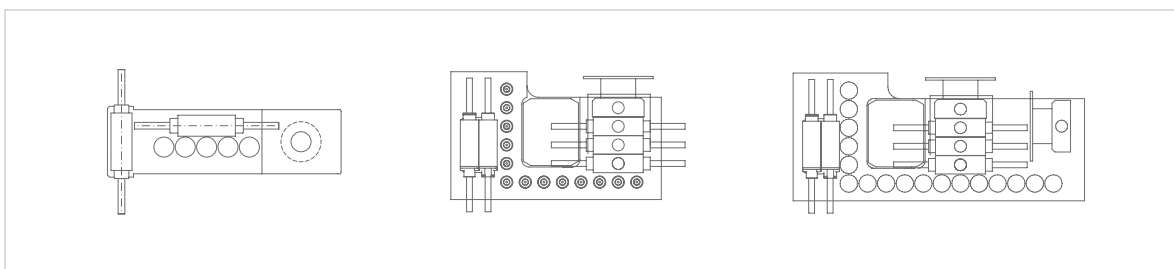
# WORKING UNIT CONFIGURATION



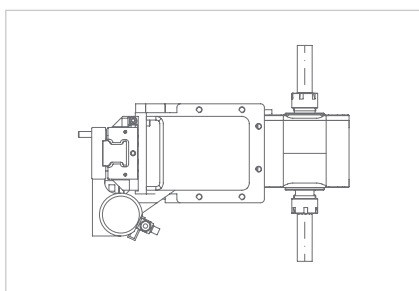
4-axis milling unit with air or liquid cooling and power levels up to 19.2 kW.



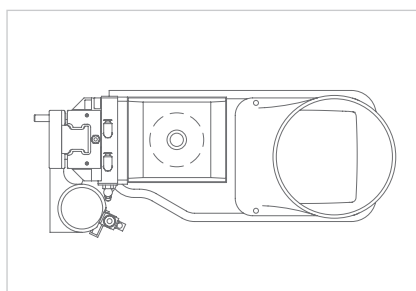
5-axis head with power up to 16.5 kW.



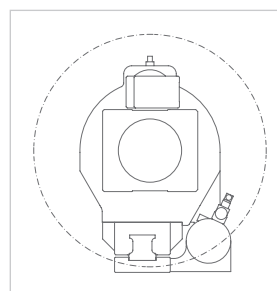
Available boring heads from 9 to 29 positions: BHZ 9 - BHZ 24 L - BHZ 29 2L.



2 outlet horizontal milling unit.



6 kW vertical milling unit.



Multi-function, with 360° rotation.

# A COMPLETE RANGE OF AGGREGATES



## EXCEPTIONAL FINISH, INCREASED PRODUCTIVITY



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



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

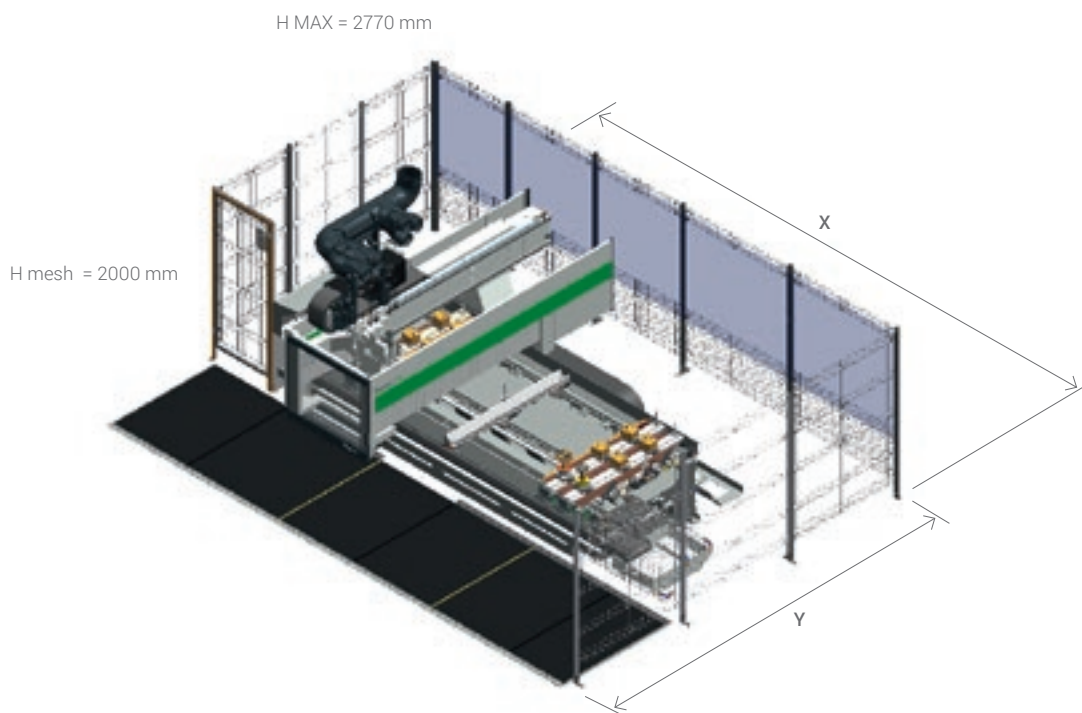


**The multi-function unit**, which can be continuously positioned over 360° by NC, can house aggregates used to carry out specific machining operations (pocketing for locks, hinge housings, deep horizontal bores, edge trimming, etc.).



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

# TECHNICAL SPECIFICATIONS



## WORKING TABLE

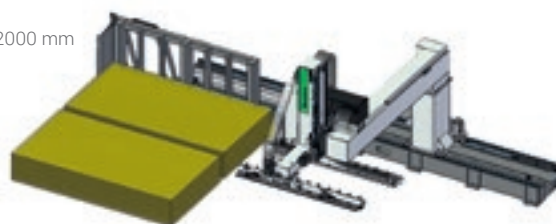
	X	Y	Z
	mm/inch	mm/inch	mm/inch
Rover A 1632	3280/129	1580/62	245/9.6
Rover A 1643	4320/170	1580 /62	245/9.6
Rover A 1659	5920/233	1580 /62	245/9.6

## WORKING TABLE SYNCHRO

Length (min/max)	mm/inch	400/3200 *
Width (min/max)	mm/inch	200/2200 *
Thickness (min/max)	mm/inch	8/150
Weight (1 panel/2 panels)	kg/lb	150/75 - 331/165
Useful height of stack	mm/inch	1000/39.3
Height of stack from ground (including 145 mm Europallet)	mm/inch	1145/45

H MAX = 2970 mm

H mesh = 2000 mm



(\* ) the Min and Max values may vary in accordance with the configurations of Synchro and the Rover machining centre to which Synchro is linked.



## FOOT PRINT

		Loadable panel	X CE photocells + bumper	Y CE photocells + bumper
<b>Rover A 1632</b>	mm/inch	2100/83	7050/278	5034/198
<b>Rover A 1643</b>	mm/inch	2100/83	8080/319	5034/198
<b>Rover A 1659</b>	mm/inch	2100/83	9684/382	5034/198

		Loadable panel	X CE mats	Y CE mats
<b>Rover A 1632</b>	mm/inch	1900/75	4674/184	4674/184
<b>Rover A 1632</b>	mm/inch	2100/83	4874/191	4874/191
<b>Rover A 1643</b>	mm/inch	1900/75	4674/184	4674/184
<b>Rover A 1643</b>	mm/inch	2100/83	4874/191	4874/191
<b>Rover A 1659</b>	mm/inch	1900/75	4674/184	4674/184
<b>Rover A 1659</b>	mm/inch	2100/83	4874/191	4874/191

<b>X/Y/Z axis speed</b>	m/min foot/min	80/60/20 (30, for 5 axis) 262/196/65 (98, for 5 axis)
<b>Vector speed</b>	m/min foot/min	100 328

The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Blesse Spa reserves the right to carry out modifications without prior notice.

The correct noise pressure level, measured from the operator's workstation, is: LP = 78 dB (A), during boring. LP = 78.5 dB (A), during milling. The noise power level is: LWA = 93.5 dB, during boring. LWA = 95.5 dB, during milling. Uncertainty factor K = 4 dB.

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.

# 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.



# MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER



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



**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.**

**MANAGE THE JOB ORDER**



**PLAN**

# SMART CONNECTION

Powered by Retuner



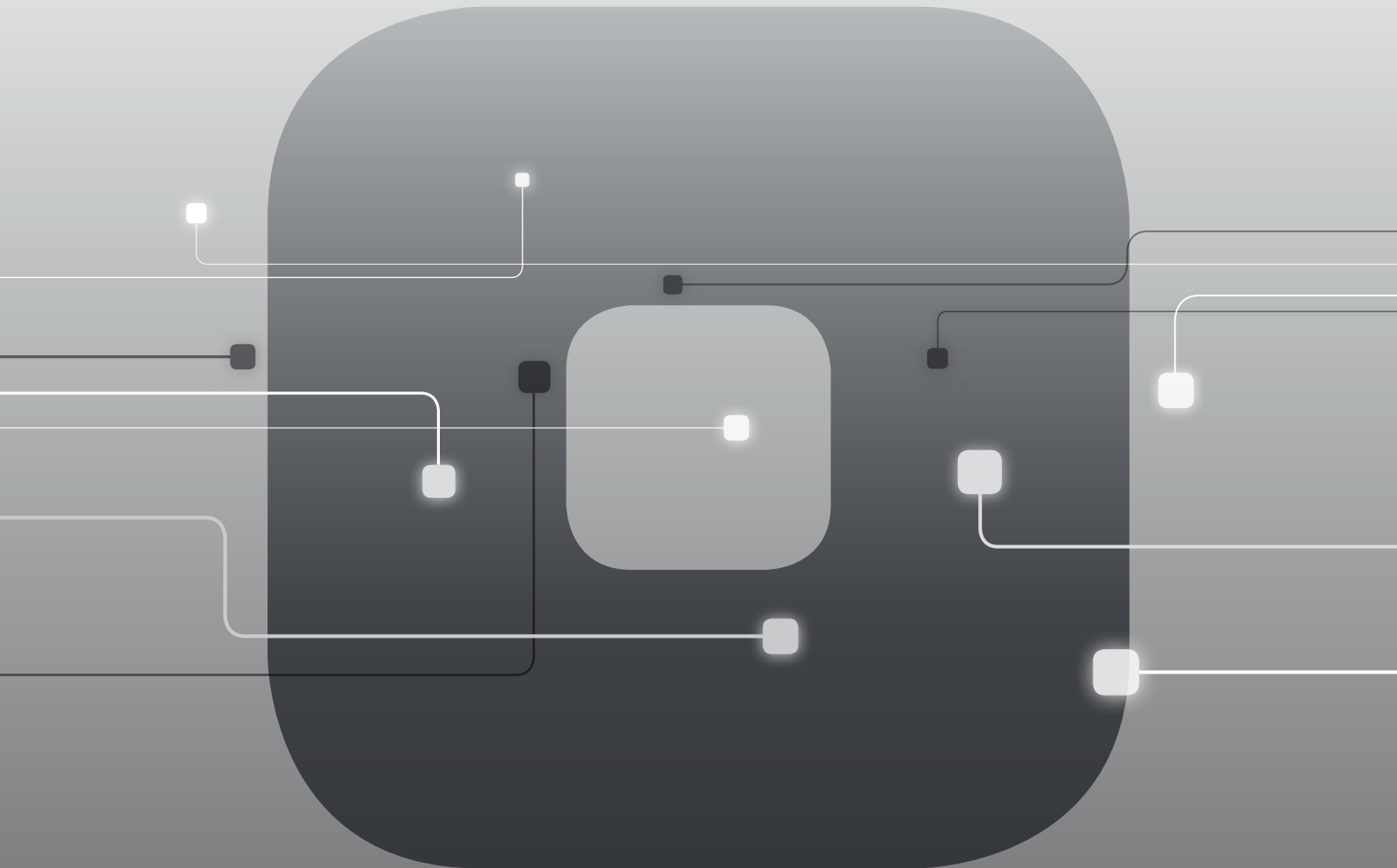
**SCHEDULE**

**WORK**

**i** 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



SOPHIA is the IoT platform created by Biesse in collaboration with Accenture which enables its customers to access a wide range of services to streamline and rationalise their work management processes.

It allows alerts and indicators to be sent to the customer in real time, in relation to production, the machines used and the type of process carried out. These are detailed instructions for more efficient use of the machine.

**10% CUT IN COSTS**

**50% REDUCTION  
IN MACHINE DOWNTIME**

**10% INCREASE  
IN PRODUCTIVITY**

**80% REDUCTION IN PROBLEM  
DIAGNOSTICS TIME**

**SOPHIA TAKES THE INTERACTION BETWEEN  
CUSTOMER AND SERVICE TO A HIGHER LEVEL.**

**iOT**  
SOPHIA

IoT - SOPHIA provides a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention. The service includes a continuous connection with the control centre, the option of calling for assistance from within the customer app (such calls are managed as priorities), and an inspection visit for diagnostic and performance testing within the warranty period. Through SOPHIA, the customer receives priority technical assistance.

**PARTS**  
SOPHIA

PARTS SOPHIA is the easy new, user-friendly and personalised tool for ordering Biesse spare parts. The portal offers customers, dealers and branches the chance to navigate within a personalised account, consult the constantly updated documentation of the machines purchased, and create a spare parts purchase basket indicating the real time availability in the warehouse and the relative price list. In addition, the progress of the order can be monitored at all times.

 **Biesse**

in collaboration with **accenture**

# 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

## BIESSE GROUP TECHNOLOGIES JOIN FORCES WITH LAGO'S INNOVATION AND TOTAL QUALITY MANAGEMENT PROCESSES.

In the crowded world of domestic design, Lago takes its place as an emerging brand, thanks to a collection of stimulating products and a corporate philosophy that embraces the interaction between business and art, coupled with on-going research into sustainable development. "We created a number of projects, or rather, concepts - states Daniele Lago - that have shaped Lago as we see it today: we saw design as a cultural vision that applies not only to individual products, but rather to the entire business chain". "Flexibility is the key word here at Lago" says Carlo Bertacco, Manufacturing Manager. "We started

to introduce the concept of processing only outstanding orders, which enabled us to reduce our footprint and empty the site from the very beginning". "The machinery that we purchased - states Bertacco - is great, it entailed a limited investment versus the capabilities it offers and is linked to a specific manufacturing approach. What I am talking about is a given manufacturing volume with Lago-standard quality levels and the possibility of customising as late as possible, at the customer's request: in short, the very basic principles of lean manufacturing".

*Source: IDM Industria del Mobile  
Lago, our customer since 1999, is one of most  
prestigious Italian furniture brands in the world.*



Founded in Italy,  
international native.

We are an international company that manufactures integrated lines and machines to process wood, glass, stone, plastic and composite materials and what will come next.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution – empowering your imagination.

Master of materials, since 1969.

We simplify your  
manufacturing  
process to make  
the potential of  
any material  
shine.



Join the  
Biesse world.

[biesse.com](https://www.biesse.com)



