

PRO VER_A

NC PROCESSING CENTRE

 **BIESSE**

THE FIRST INVESTMENT FOR GREAT GROWTH



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 RESPONDS

with **technological solutions** that influence and support technical expertise as well as process and material knowledge. **Rover A** is the new NC processing centre offering top performance and flexibility. It's designed for the customer who wants to invest in a product that can process any type of element quickly and economically.



ROVER_A

- ✔ PERSONALISATION TO SUIT A WIDE VARIETY OF PRODUCTION NEEDS
- ✔ ERGONOMIC AND COMPACT
- ✔ PRECISE AND RELIABLE OVER TIME
- ✔ SAFE AND ERGONOMIC FOR THE OPERATOR.

A SINGLE WORK CENTRE FOR MANY TYPES OF MACHINING OPERATIONS

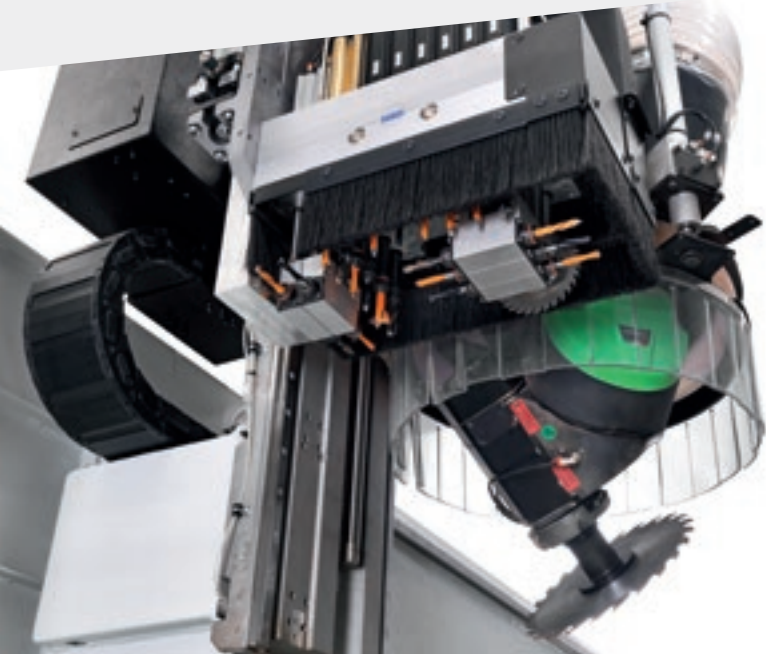
Rover A is ideal for the production of any element such as windows, doors, stairs, work-tops, furnishing items and much more besides.



The 5-axis operating section is technologically advanced and can work pieces with complex shapes, guaranteeing optimum precision and productivity

The **continuous rotation** of the B and C axes, enabled by the hi-tech components, ensures the maximum machining speed and the optimum quality of the end product.

TOP-OF-THE-RANGE COMPONENTS



The new BH29 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 BH29 2L.



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



**INNOVATIVE GEAR-FREE
C AXIS TORQUE -
MORE PRECISE,
MORE RAPID,
MORE RIGID.**

HIGH PRECISION AND RELIABILITY OVER TIME

The Rover A with gantry structure is designed to withstand high levels of machining strain, guaranteeing the quality of the end product.



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



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.



SA (Set Up Assistance)

The assisted set-up work table suggests to the operator how to position the panel, (indicating the position of work tables and blocking systems) and protects the work area from any collisions with the tool.

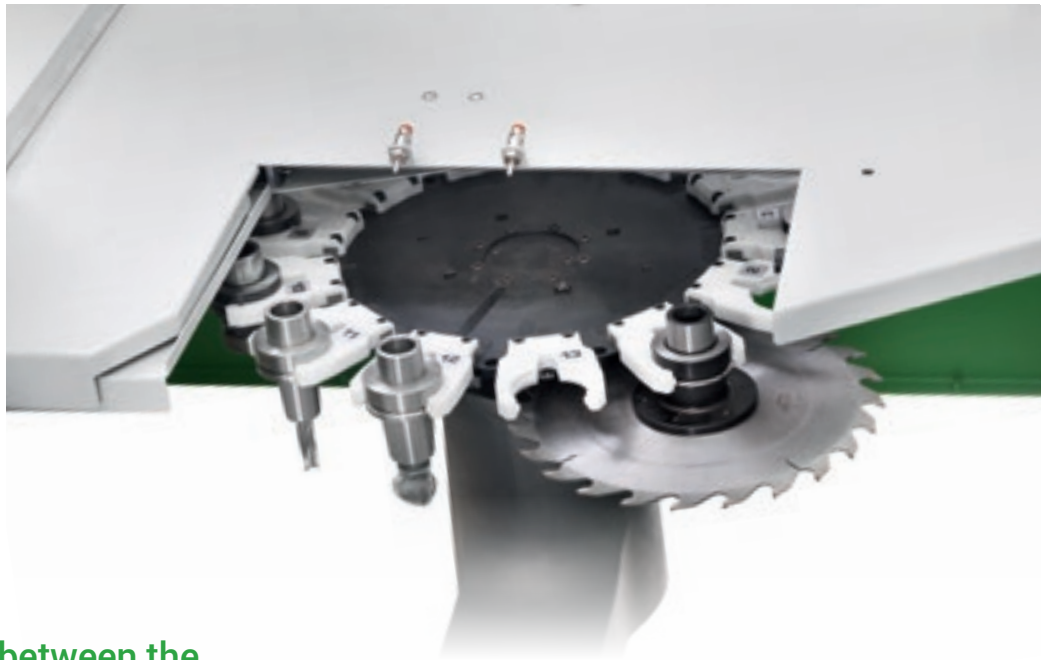
REDUCED TOOL CHANGEOVER TIME

Up to 39 places, ensuring that the necessary tools
are always close at hand



Rack tool magazine with 12 or 23 places, with integrated pick-up.

Revolver tool magazine with 13 or 16
places.



The possibility to switch between the
rack magazine and the revolver one
speeds up tool change operations,
making the machine more productive.

ABILITY TO PROCESS LARGE SIZES

The entire working area is covered by all the milling and boring units to ensure optimum efficiency.



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

- ✔ Rover A 1232
- ✔ Rover A 1242
- ✔ Rover A 1256
- ✔ Rover A 1532
- ✔ Rover A 1542
- ✔ Rover A 1556



WITH ROVER A, A MANUFACTURER CAN ACCEPT ORDERS FOR THICKER PANELS THANKS TO THE 245 MM WORKING HEIGHT.



5 AXES

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 13 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.



MAXIMUM OPERATOR SAFETY

Biesse machines are designed to work in complete safety.

Various solutions available:

With the new “full bumper” solution, the work table can be accessed from every side - this is the most ergonomic solution.

Solution with mats only, for speed and productivity.

Bumper plus photocells solution, combining productivity with ergonomics



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



Overlapping lateral curtain guards protect the working unit.

TECHNOLOGY AT THE SERVICE OF THE USER



New console with Windows real-time operating system and bSolid software interface, including anti-collision system.

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



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.

INDUSTRY 4.0 READY

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.

ROVER

LOADING AND UNLOADING SOLUTIONS

Automated cell for machining a batch of panels or doors.

Synchro is a handling device with 4 controlled axes which are actioned by the Rover machining centre. It collects the panels to be machined from a stack, positions them in reference to a point of origin provided by the machining centre and, once the machining operation is complete, deposits them in an area designed to accommodate the stack of machined panels. The working cycle is executed in automatic mode until the entire batch to be processed is complete.



Device for the removal of porous panels or those with special finishes

It increases the reliability and the repeatability of the automatic cell operation cycle, even when machining porous materials or those with special finishes, which are often supplied with a protective film.



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.



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.

Synchro can be positioned to the left or right of the machining centre.
Flow of materials that are consistent with the customer facility production cycle.

- ▶ Prevents damage caused by manual handling of materials;
- ▶ extremely simple user interface, integrated into the machining centre programming functions.

OPTIMAL CLEANING OF MACHINED PIECE AND WORK AREA



Motorised conveyor belt for the removal of chips and waste.

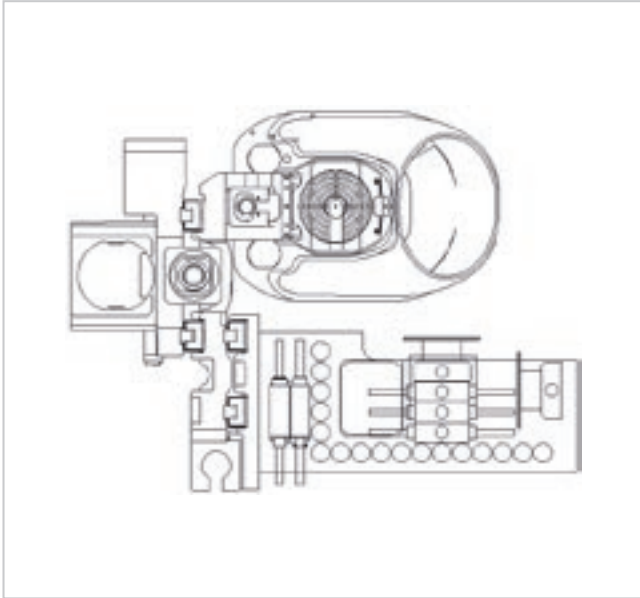


NC-controlled deflector (chip conveyor).

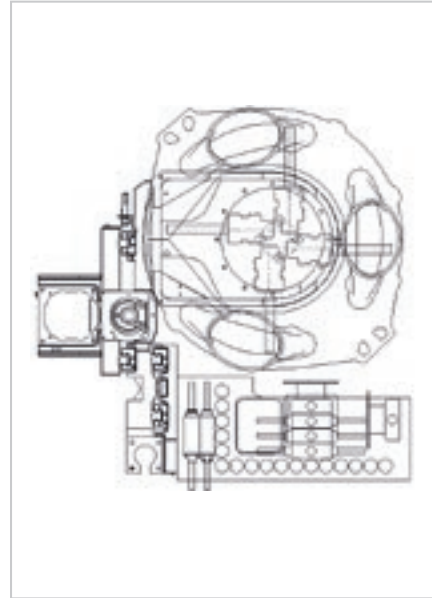


Adjustable suction hood with 6 settings (for 4 axes) and 13 setting (for 5 axes).

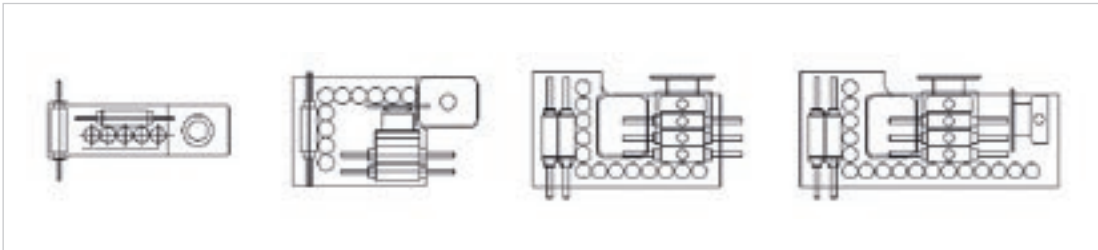
WORKING UNIT CONFIGURATION



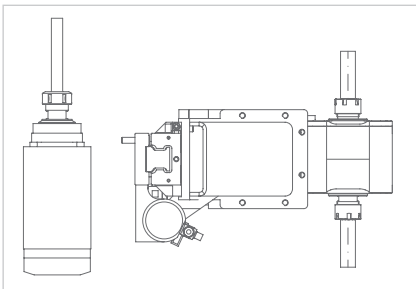
4-axis milling unit with power up to 19.2 kW.



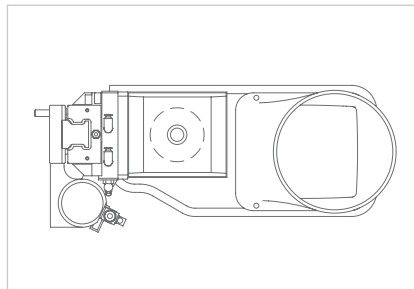
5-axis milling unit with power of 13 kW.



Available boring heads from 9 to 29 positions: BH9 – BH17 – BH24 – BH29 2L



Horizontal milling unit with 1 output.
 Motor power 5.4 kW
 Horizontal milling unit with 2 outputs
 Motor power 6.0 kW
 The liquid cooling system guarantees excellent reliability.



Vertical milling unit.
 Motor power 7.2 kW

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.



SOPHIA

GREATER VALUE FROM MACHINES



SOPHIA IS THE BIESSE IOT PLATFORM WHICH ENABLES CUSTOMERS TO ACCESS AN EXTENSIVE RANGE OF SERVICES TO STREAMLINE AND RATIONALISE THEIR WORK MANAGEMENT PROCESSES.

IT IS BASED ON THE ABILITY TO SEND REAL-TIME INFORMATION AND DATA ON THE TECHNOLOGIES IN USE, OPTIMISING THE PERFORMANCE AND PRODUCTIVITY OF MACHINES AND SYSTEMS. IT CONSISTS OF TWO AREAS: IOT AND PARTS.

- **REDUCED PRODUCTION TIME**
- **LOWER COSTS**
- **REDUCTIONS IN MACHINE DOWNTIME**
- **OPTIMISATION OF THE PRODUCTION PROCESS**
- **INCREASE IN PRODUCTIVITY**
- **MAXIMUM QUALITY OF DAILY WORK**

The various functions of the **iOT** app offer a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention.

PARTS is the new replacement parts web portal which allows users to navigate within a personalised account, providing access to all the information on purchases and enabling a replacement parts shopping cart to be submitted, and the progress of orders to be monitored.

TECHNICAL SPECIFICATIONS

WORKING TABLE

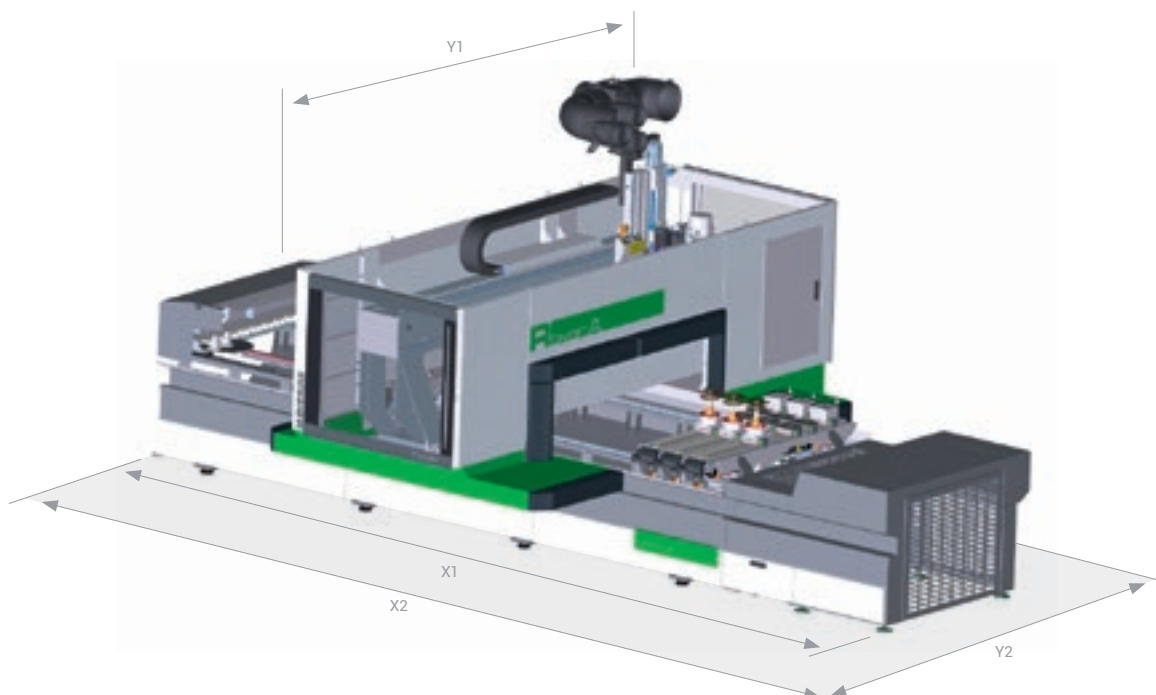
		X	Y	Z
Rover A 1232	mm	3140	1260	245
Rover A 1242	mm	4140	1260	245
Rover A 1256	mm	5540	1260	245
Rover A 1532	mm	3140	1560	245
Rover A 1542	mm	4140	1560	245
Rover A 1556	mm	5540	1560	245

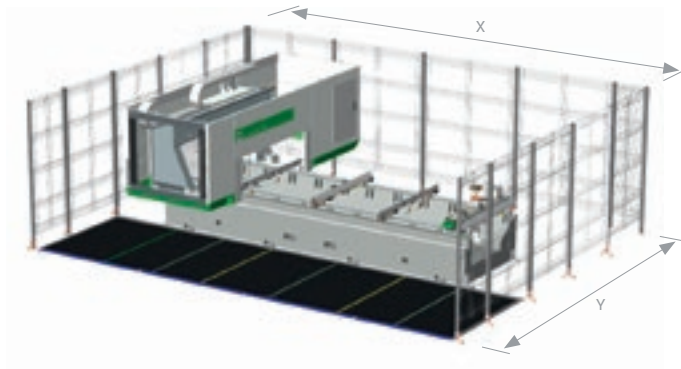
AXIS SPEED

		X	Y	Vector speed
Mats	m/min	60	60	85
Bumper + photocells	m/min	60 / 25	60	85 / 65
Full bumper	m/min	25	60	65

FULL BUMPER FOOT PRINT

		Loadable panel	X1	X2	Y1	Y2	H
Rover A 1232	mm	1350	7126	6626	4549	3549	2600
Rover A 1242	mm	1350	8126	7626	4549	3549	2600
Rover A 1256	mm	1350	9526	9026	4549	3549	2600
Rover A 1532	mm	1650	7126	6626	4849	3849	2600
Rover A 1542	mm	1650	8126	7626	4849	3849	2600
Rover A 1556	mm	1650	9526	9026	4849	3849	2600



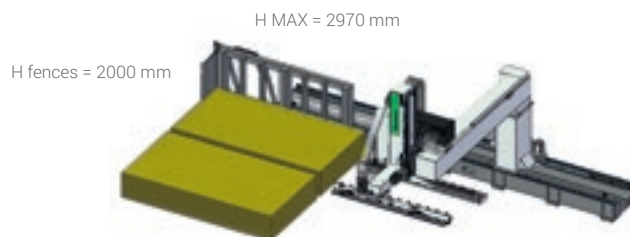


OVERALL DIMENSIONS OF SAFETY FENCES AND CONTACT MATS

		Loadable panel	X	Y	H
Rover A 1232	mm	1350	6383	4822	2600
Rover A 1242	mm	1350	7383	4822	2600
Rover A 1256	mm	1350	8783	4822	2600
Rover A 1532	mm	1650	6383	5122	2600
Rover A 1542	mm	1650	7383	5122	2600
Rover A 1556	mm	1650	8783	5122	2600

PHOTOCELLS + BUMPER FOOT PRINT

		Loadable panel	X	Y	H
Rover A 1232	mm	1350	7286	4884	2600
Rover A 1242	mm	1350	8286	4884	2600
Rover A 1256	mm	1350	9686	4884	2600
Rover A 1532	mm	1650	7286	5184	2600
Rover A 1542	mm	1650	8286	5184	2600
Rover A 1556	mm	1650	9686	5184	2600



WORKING TABLE SYNCHRO

		Min	Max
Length	mm	500	2500
Width	mm	200	1350
Thickness	mm	16	60
Weight	Kg	-	100
Useful height of stack	mm	-	1000
Height of stack from ground (including 145 mm Europallet)	mm	-	1145

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.

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

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.

SERV ICE & 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

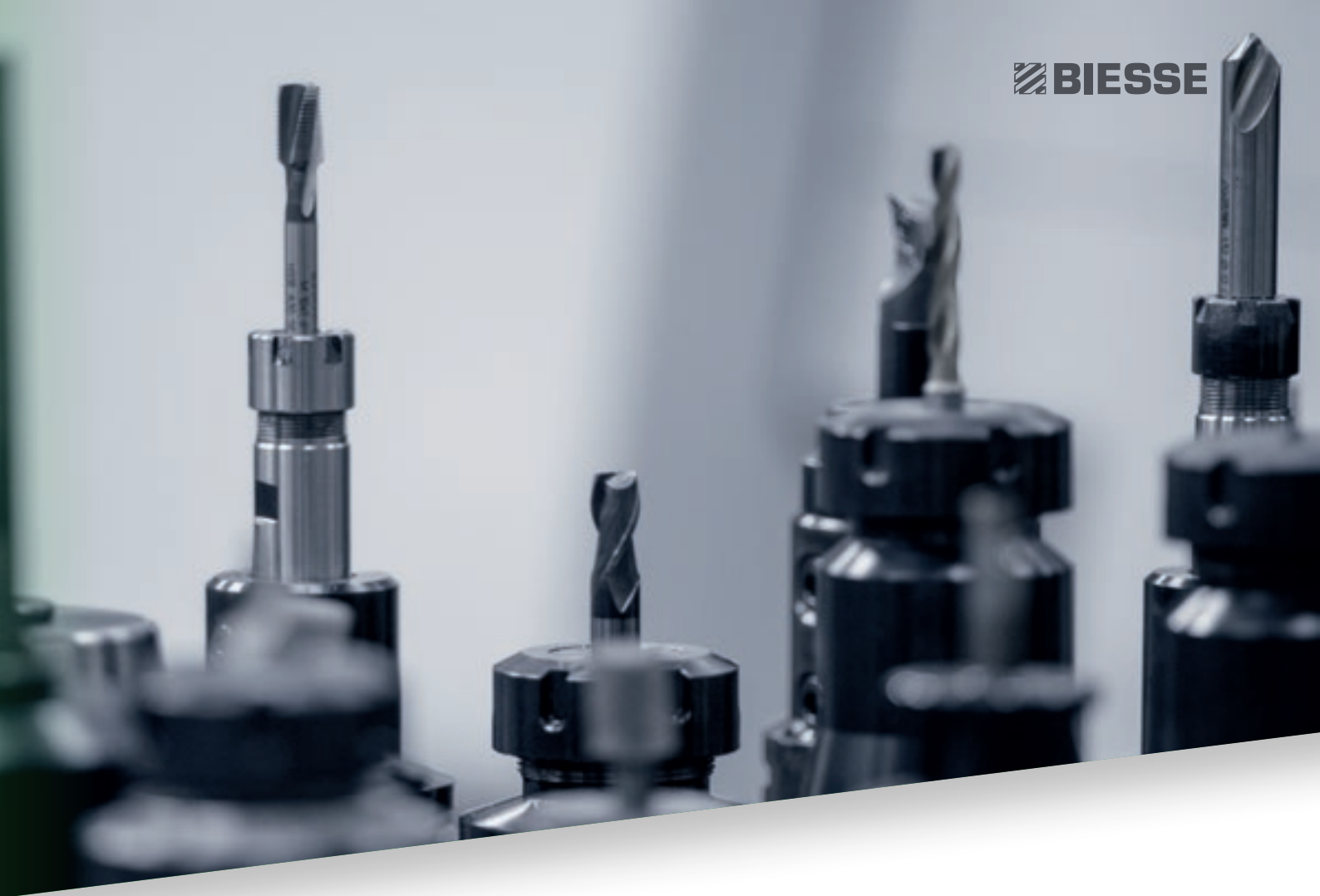
Biesse engineers manning a Teleservice Centre.

550

certified Dealer engineers.

120

training courses in a variety of languages every year.

A close-up photograph of several metal drill bits and tool components, arranged in a row. The bits are of various sizes and designs, some with black coatings. The background is a soft, out-of-focus grey.

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 specialized 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 customized 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 fulfillment time optimized thanks to a global distribution network with de-localized, automated warehouses.

92%
of downtime machine orders fulfilled
within 24 hours.

96%
of orders delivered in full on time.

100
spare part staff in Italy and worldwide.

500
orders processed every day.

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.*

LAGO.IT



LIVE THE EXPERIENCE

BIESSEGROUP.COM



Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD.



BIESSEGROUP

