

PRO VER

A SMART 16

NC PROCESSING CENTRE



 **BIESSE**

A CHOICE FOR THE FUTURE

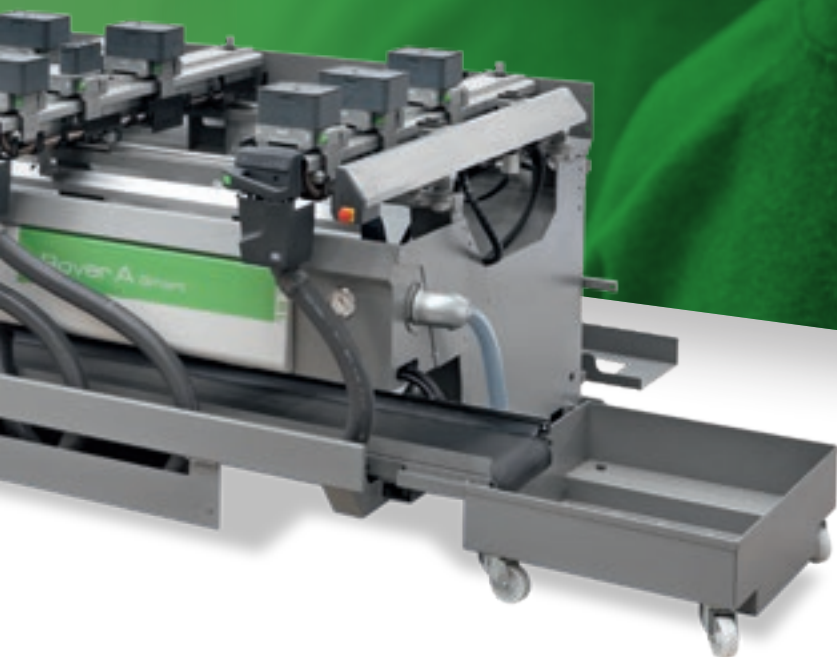


THE MARKET EXPECTS

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 and product customisation with quick and defined delivery times, as well as responding to the needs of the most creative architects.

BIESSE MEETS

these requirements with technological solutions that enhance and support technical expertise as well as process and material knowledge. **Rover A Smart 16** is a simple, userfriendly 5-axis NC processing centre for producing any type of furnishing item. It's ideally suited to both small and large joineries that need to manufacture either irregular shaped components or standard-size components in small batches.



ROVER A SMART 16

- ✔ OPTIMUM PRECISION AND HIGH FINISH QUALITY
- ✔ ABILITY TO PROCESS LARGE SIZES
- ✔ REDUCED TOOL CHANGEOVER TIME
- ✔ HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

A SINGLE PROCESSING CENTRE TO MEET EVERY PRODUCTION NEED

5-axis technology to give extra value to the finished product. Allows complex pieces to be created with the utmost simplicity, accuracy and finish quality.



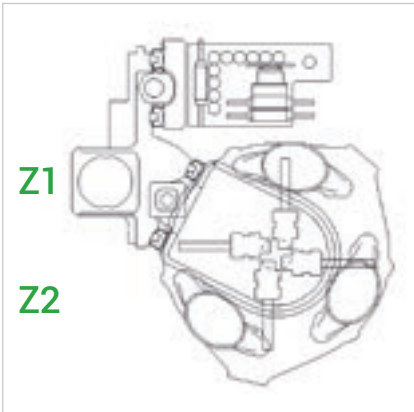
OPTIMUM PRECISION AND HIGH FINISH QUALITY



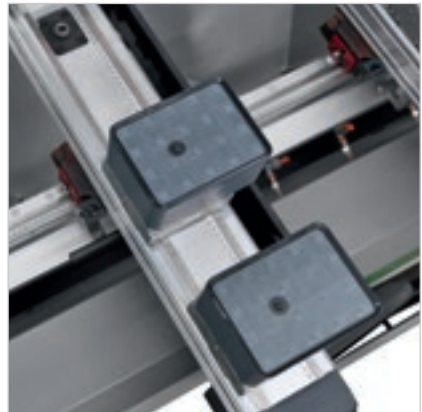
The new BH29 2L boring head is equipped with automatic lubrication and a highly efficient rigid suction cap for a cleaner environment. It's liquid-cooled for maximum precision.

Maximum reliability and productivity thanks to the use of first class components on all the machines of the Rover range.

Linear slide guides for the work table, for perfect positioning accuracy and stability.



The two independent Z axes guarantee excellent machinability in Z. The high speed of the Z axis (30m/min) allows the 5-axis unit to perform machining cycles and tool changes very quickly.



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 or 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.



ABILITY TO PROCESS LARGE SIZES

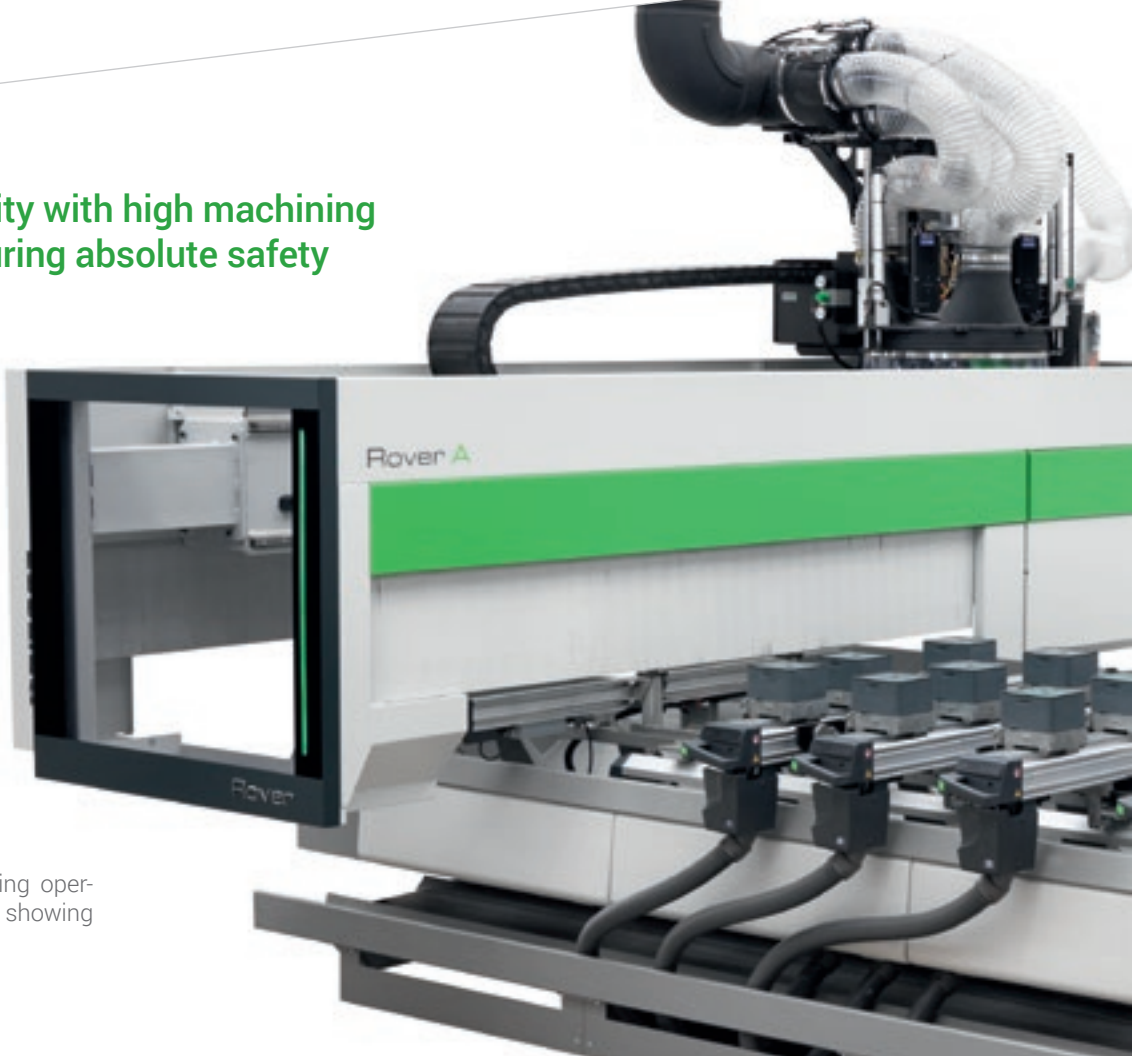
The machine can accept pieces of 245mm (the only one in its category to do so), so every job order can be accepted and pieces of considerable thickness can be machined.

THE POSSIBILITY TO LOAD PANELS WITH A DEPTH OF 1900MM MEANS THE PRE-SECTIONING PHASE CAN BE AVOIDED AND PIECES LARGER THAN THE WORKING AREA CAN BE MACHINED THANKS TO DOUBLE POSITIONING.



MAXIMUM OPERATOR SAFETY

Excellent productivity with high machining speeds, whilst ensuring absolute safety for the operator.



Maximum visibility of machining operation. LED bar with 5 colours showing machine status in real time.



Remote control panel for direct and immediate operator control.



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



Side curtain guards to protect the working unit; they can be moved to enable the machine to work at maximum speed in total safety.

VECTORIAL SPEED OF 100M/MIN.

REDUCED TOOL CHANGEOVER TIME

The Biesse work table guarantees an optimum hold on the piece and quick, easy tooling.



Uniclam

Pneumatic locking systems with quick release.



SA (Set Up Assistance)

The work table has a guided positioning function, providing the operator with suggestions on how to position the panel (indicating the position of the work tables and locking systems) and protecting the working area from the risk of collision with the tool.



16-place Revolver tool magazine on the X carriage

so that tools and aggregates are always readily available. Equipped with a protective tool cover with automatic opening.



12-place tool magazine on the base

The tooling of the 16-place quick Revolver magazine can be automatically modified by picking up the tools from the 12-place rack magazine. This means machining can continue without hampering pendular operation. The first front position acts as a Pick-Up for tooling the Revolver magazine.

Equipped with a protective tool cover with automatic opening.

REDUCED CLEANING TIMES TO ENSURE MAXIMUM PRODUCTIVITY



5-axis milling unit with 360mm hood with adjustable height.



Adjustable suction hood multistep.



↙
Chip collection basin supplied with the chip mat.

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



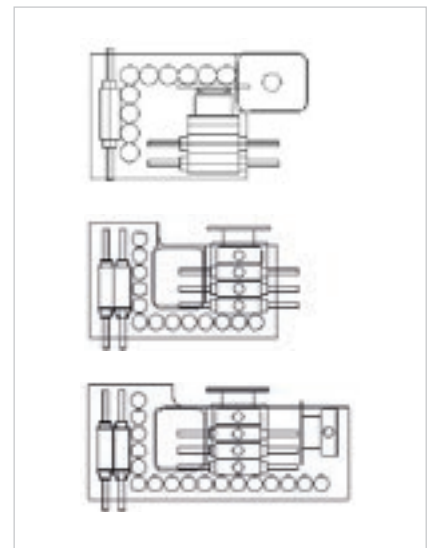
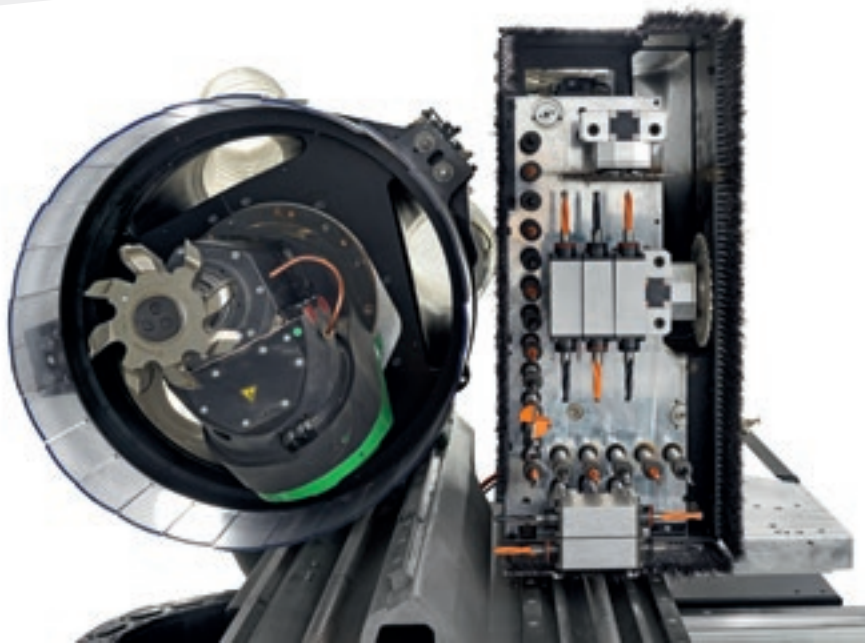
Industry 4.0 is the new industry frontier, based on digital technologies and on machines that speak to companies. The products driving this revolution can communicate and interact independently within production processes, which in turn are connected via intelligent networks.



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

WORKING UNIT CONFIGURATION



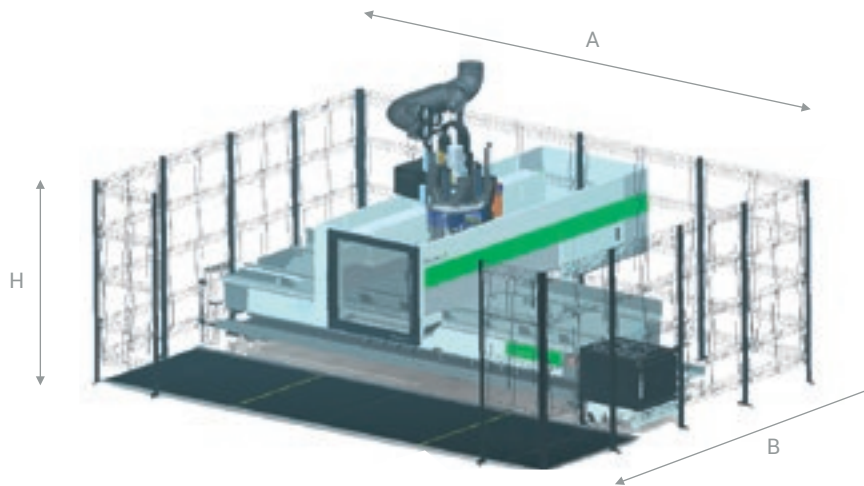
The machine can be configured with vertical milling units up to 19.2 kW or with a 5-axis electro-spindle with power of 13 kW or 16.5 kW.

Available boring heads
BH17 L - BH24 L - BH29 2L.

A COMPLETE RANGE OF AGGREGATES



TECHNICAL SPECIFICATIONS



WORKING TABLE

	X	Y	Z
Rover A Smart 1632	3280	1620	245
Rover A Smart 1643	4320	1620	245
Rover A Smart 1659	5920	1620	245

FOOT PRINT

	Configuration	Available magazine	A	B	H
Rover A Smart 1632	1	12-place rack magazine	5600	4150	2770
	2	16-place Revolver tool magazine - 12-place rack magazine	5600	4610	2770
Rover A Smart 1643	2	16-place Revolver tool magazine - 12-place rack magazine	6630	4610	2770
Rover A Smart 1659	2	16-place Revolver tool magazine - 12-place rack magazine	8260	4610	2770

AXIS SPEED

	H max
Axis speed X / Y / Z	80 - 60 - 20 m/min
Vector speed	100 m/min

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.

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

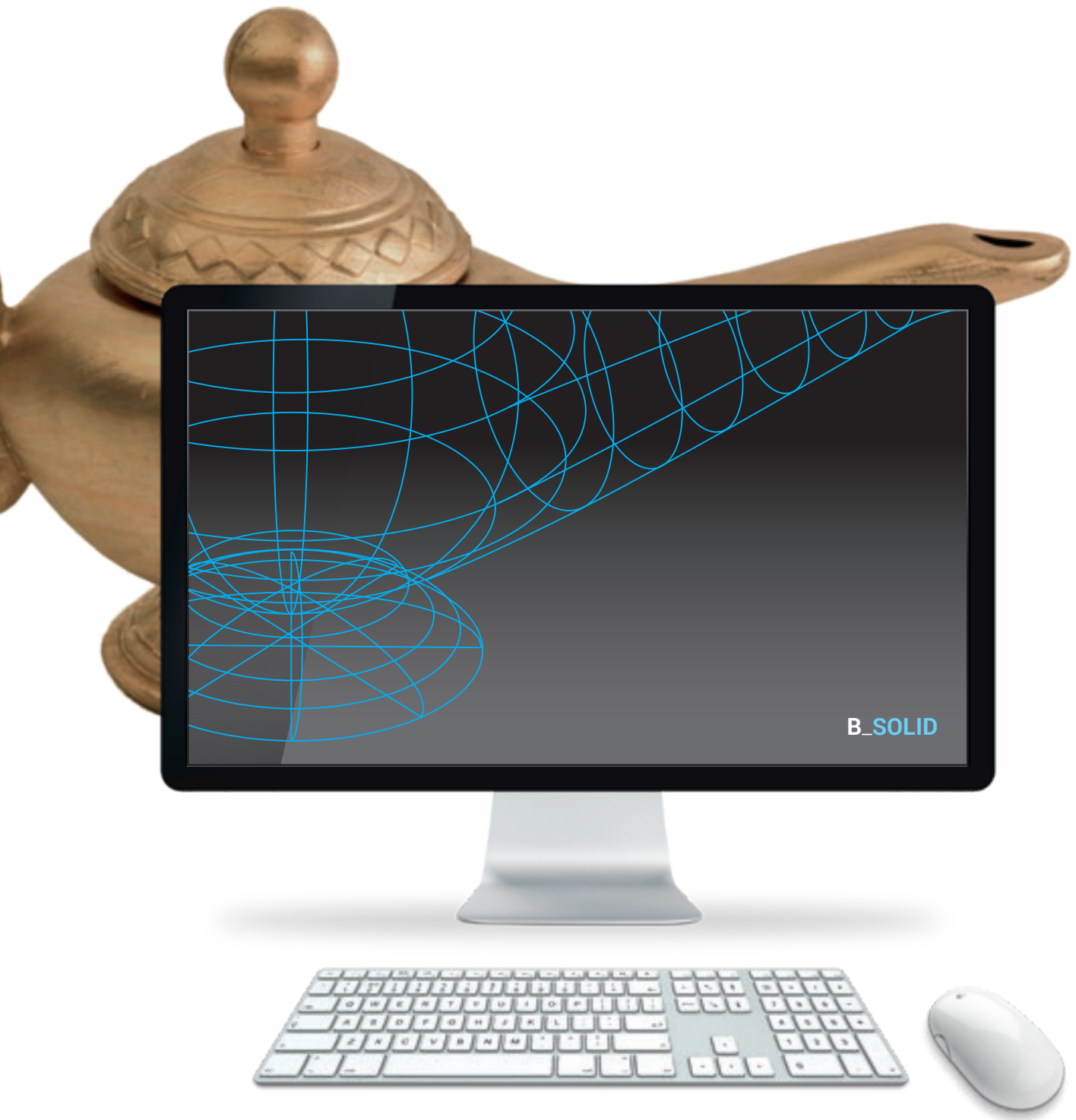


B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

- Planning in just a few clicks, 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.
- Machining operation simulation with a calculation of the execution time.



B_SOLID



IDEAS TAKE FORM AND SHAPE



B_CABINET IS A UNIQUE SOLUTION FOR MANAGING FURNITURE PRODUCTION FROM THE 3D DESIGN PHASE TO PRODUCTION FLOW MONITORING.

IT'S NOW POSSIBLE TO PLAN THE DESIGN OF A SPACE AND QUICKLY PASS FROM CREATING THE SINGLE ELEMENTS TO GENERATING PHOTO-REALISTIC CATALOGUE IMAGES, FROM GENERATING TECHNICAL PRINTS TO PRODUCING REQUIREMENT REPORTS, AND ALL IN ONE SINGLE ENVIRONMENT.

B_CABINET FOUR (SUPPLEMENTARY MODULE) MAKES IT EASY TO MANAGE ALL THE WORK PHASES (CUTTING, MILLING, BORING, EDGEBANDING, ASSEMBLY, PACKAGING), JUST WITH A CLICK.

B_CABINET FOUR INCLUDES AN ENVIRONMENT DEDICATED TO THE REAL TIME MONITORING OF THE PROGRESS OF THE PRODUCTION PHASES. THAT MEANS COMPLETE CONTROL OF THE ORDER STATUS, STEP BY STEP, THANKS TO CHARTS AND 3D IMAGES.

B_CABINET



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**

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.*



BIESSE TECHNOLOGY PULLS DOUBLE-DUTY AT MCM

One of the secrets to cost-justifying an investment in flexible, labor-saving technology is finding ways to keep it busy.

MCM Inc. of Toronto has mastered that trick of the trade. To maximize the return on investment for some of its plethora of CNC machinery, the company has purchased equipment that can be used both to fabricate parts for its custom office and retail environment projects and to manufacture acoustical ceiling panels it produces for another company. Many of the machines pulling double duty on MCM's shop floor sport the Biesse logo. "For our company, this is a great combination because the CNC machining for the acoustical product is fairly simple; it's just a lot of holes," said Gregory Rybak, who founded MCM, short for Millworks Custom Manufacturing, in 2001. "But having this technology greatly helps us with all of the custom work, especially for very intricate shapes and profiles. The acoustical ceiling panels are helping fill up our capacity, which is why we can afford to have all of these machines. If it were just for custom work, we would never be able to buy all of them." MCM has so many Biesse machines that Rybak said even he loses count. He then proceeded to rattle them off resulting in the following list of 11 Biesse machines: Rover C9 5-axis CNC machining center

with a combination table; Rover A 5-axis CNC machining center with a combination table; Two Rover B7 flat table CNC nesting routers; Rover G5 flat table machining center; Rover S CNC machining center with a 4x8 flat table; Rover A 1536G CNC nested-base workcell; Skipper 100 drilling machine, winner of an IWF 2006 Challengers Award; Two Selco beam saws Stream edgebander.

Rybak prides MCM's ability to tackle custom retail and office projects most of its competitors can't. In addition to its wealth of woodworking technology, MCM has custom veneer layup capabilities, a 40,000-square-foot metal fabrication shop and a 140-foot-long flat line Rybak prides MCM's ability to tackle custom retail and office projects most of its competitors can't. In addition to its wealth of woodworking technology, MCM has custom veneer layup capabilities, a 40,000-square-foot metal fabrication shop and a 140-foot-long flat line finishing system.

MCM's newest Biesse machine is a Rover S CNC flat table machining center. It is mainly used in tandem with the Skipper to manufacture acoustical ceiling panels, but also gets pressed into service from time to time to fabricate parts for commercial and office projects.

The Rover S, which is also used to fabricate parts from plastic and non-ferrous metals, replaced the job performed by

one of MCM's two Rover B CNC nesting routers. Both Rover B machines are now dedicated to custom products. The Rover C9, a five-axis router with a flat table, is another example of a machine doing production and custom work. "The C9 is a combination machine that we use for the acoustical product but get used more for three-dimensional parts. We recently used the C9 to cut a railing that went through three floors of an office". The railing was actually glued-up solid oak about 2-3/8 inch. The top of the railing for each landing had a fairly intricate spiral design. "The five-axis machines have the most downtime; we may only use them 20 percent of the time," Rybak said. "But without the five-axis capacity we wouldn't be able to do a lot of the parts, like the railings. While you pay a premium for it, for us it's worth it."

IT'S BEEN A GOOD MARRIAGE. BIESSE IS A WORLD-CLASS SUPPLIER AND HAS BEEN A GOOD COMPANY FOR US OVER THE YEARS IN TERMS OF SERVICE AND SUPPORT


Gregory Rybak
MCM Founder

MCM2001.CA



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

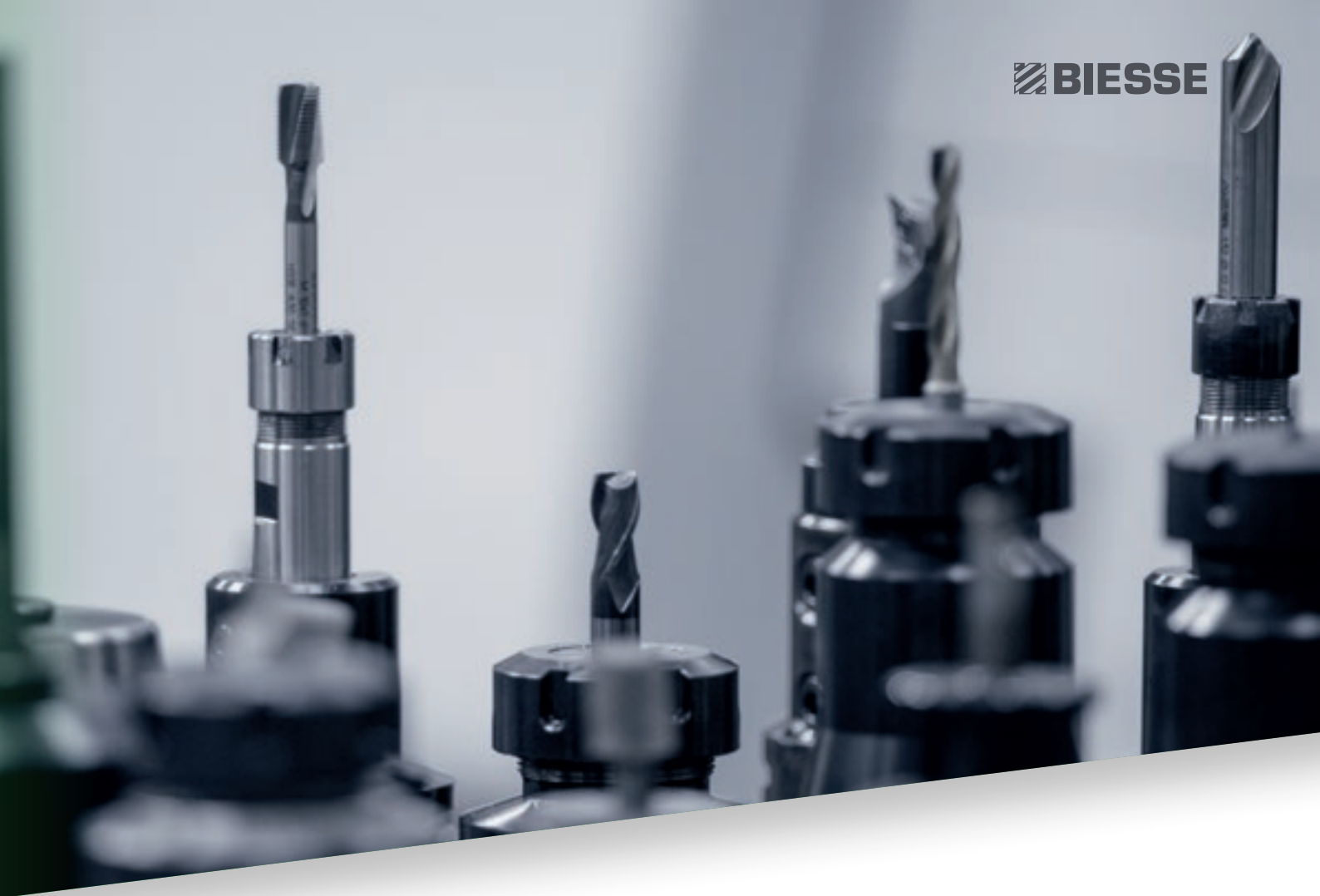
Biesse engineers manning a Teleservice Centre.

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 focus is on the sharp, fluted tips of the bits, with the background being 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.

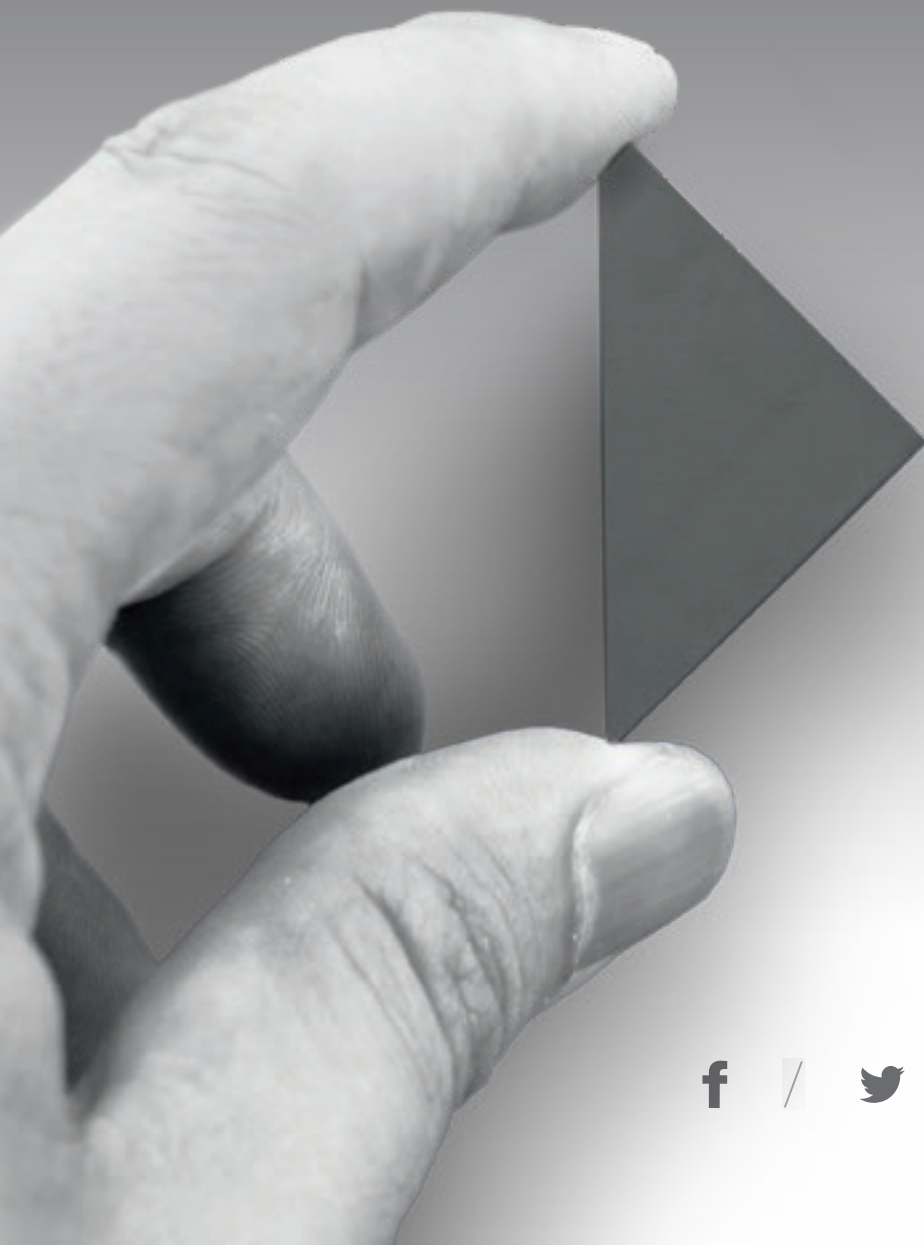
92%
of downtime machine orders fulfilled
within 24 hours.

96%
of orders delivered in full on time.

100
spare part staff in Italy and worldwide.

500
orders processed every day.

LIVE THE EXPERIENC



BIESSEGROUP.COM

E



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**

