ROVER A 12/15

NC PROCESSING CENTRE

BIESSE

50 YEARS

BIESSEGROUP

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

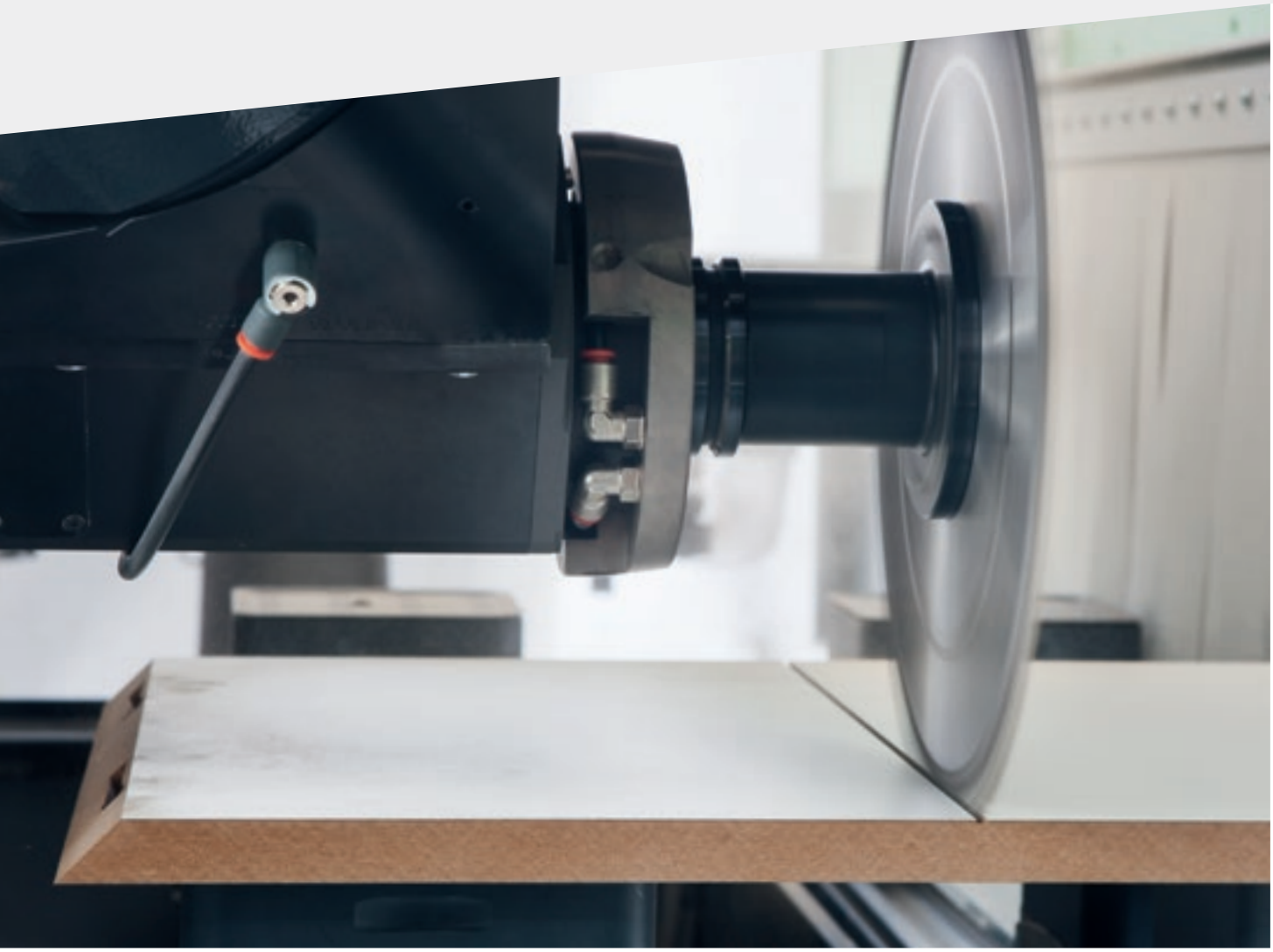
with **technological solutions** that influence and support technical expertise as well as process and material knowledge. **Rover A** is the new NC processing centre offering top performance and flexibility. It's designed for the customer who wants to invest in a product that can process any type of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

ROVER A 12/15

- 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 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.

TOP-OF-THE-RANGE COMPONENTS

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.

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.

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 placeand ensures quick and easy tool changeover.

Uniclamp clamps
with pneumatic system.

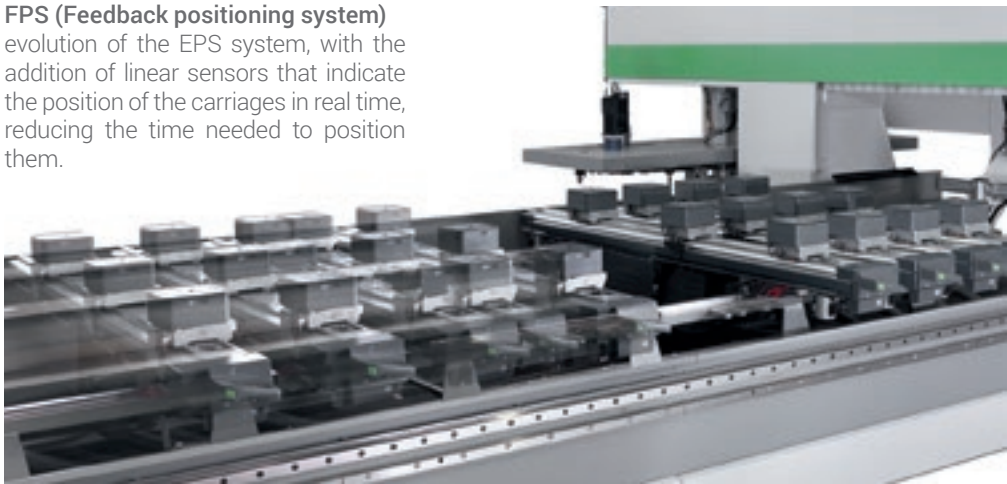
DIFFERENT WORK TABLES AVAILABLE ACCORDING TO DIFFERENT NEEDS

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

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

EPS (Electronic Positioning System)
For the quick, automatic positioning of the clamping systems in the programmed positions.
The motors, along with the collision control function, ensure controlled positioning movements to reduce the risk of collisions.

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.



SIMPLE AND FAST CHANGEOVER WORK TABLE

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

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.

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

Revolver tool magazine
with 13 or 16 places.

ABILITY TO PROCESS LARGE SIZES

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

THE 245MM PIECE PASSAGE MAKES ROVER A EXTREMELY FLEXIBLE AND ABLE TO PROCESS EVEN CONSIDERABLY THICK PIECES.

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

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.

IDE
NTITY

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.

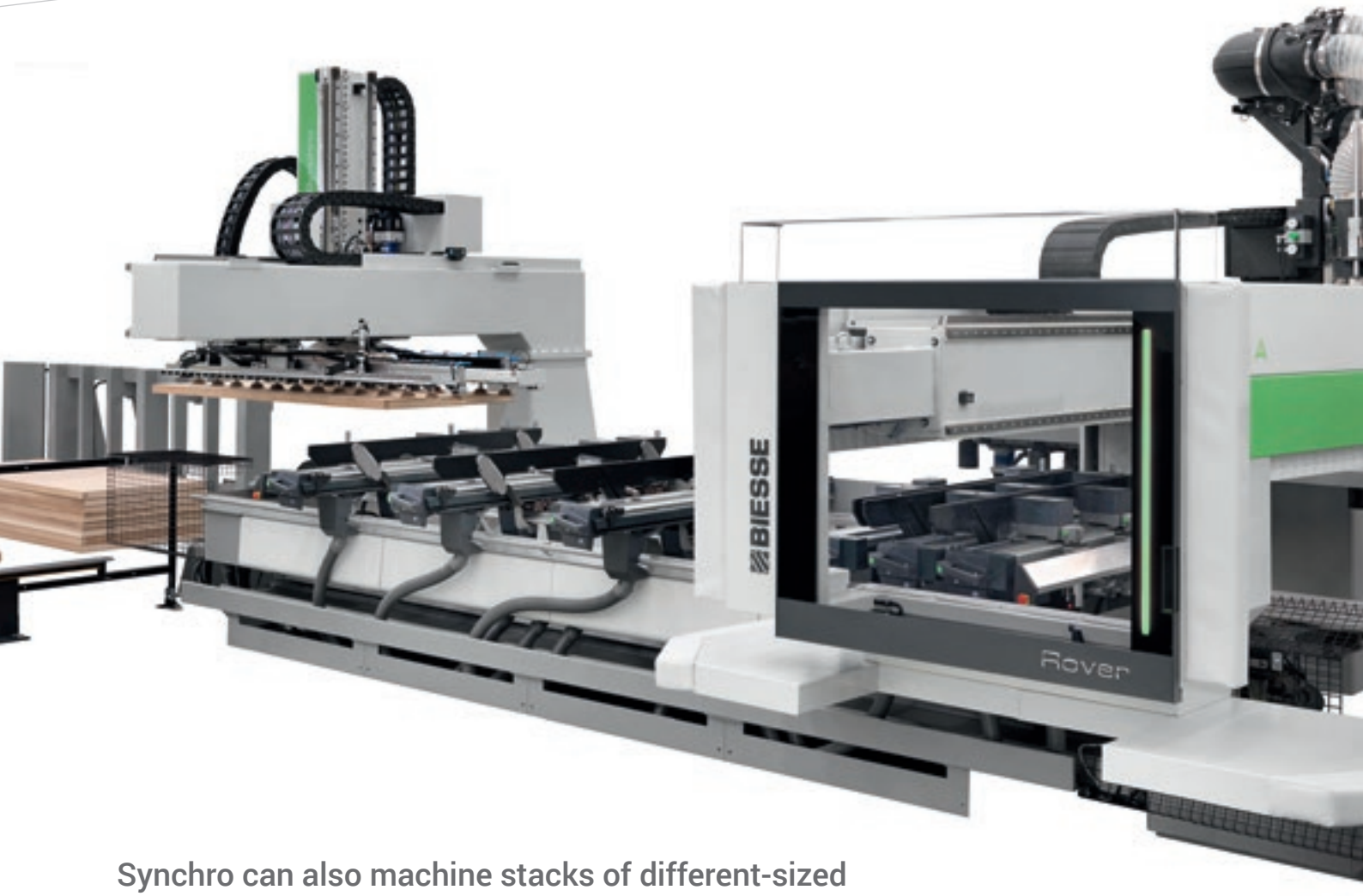
Synchro is a loading/unloading device that transforms the Rover machining centre into an automatic cell for producing a stack of panels autonomously without the need for an operator:

- 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.

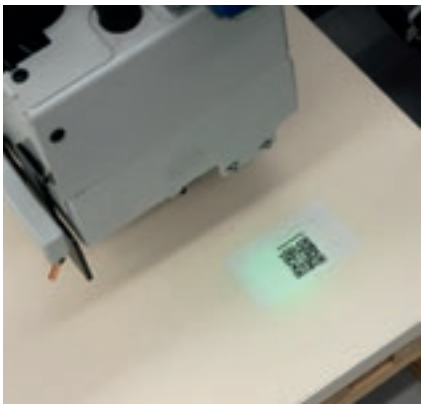
Device for the removal of porous panels or those with special finishes
It increases the reliability and the repeatability of the automatic cell operation cycle, even when machining porous materials or those with special finishes, which are often supplied with a protective film.

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.



Bar code scanner for automatically sending the machining program of the Rover machining centre.

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

- 0 operators
- 1 machining program
- 2 panels

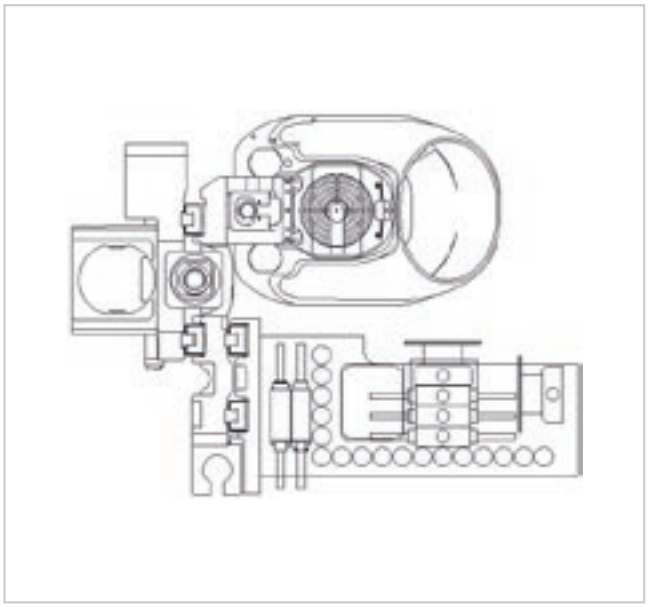
OPTIMAL CLEANING OF MACHINED PIECE AND WORK AREA

Motorised conveyor belt for the removal of chips and waste.

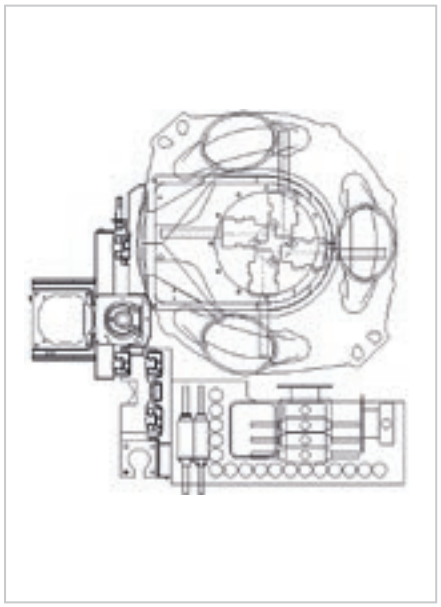
NC-controlled deflector (chip conveyor).

Adjustable suction hood with 8 settings (for 4 axes) and 12 setting (for 5 axes).

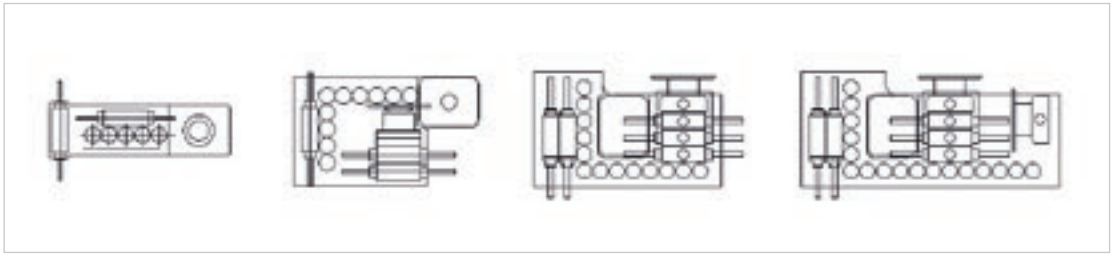
WORKING UNIT CONFIGURATION



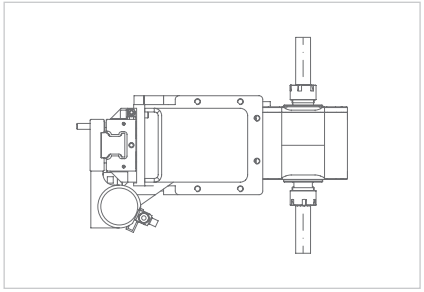
4-axis milling unit with power up to 19.2 kW.



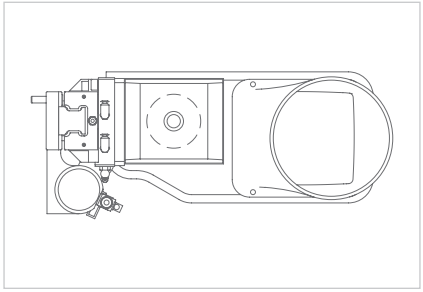
5-axis milling unit with power of 13 kW.



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



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



Vertical milling unit.
Motor power 7.2 kW

TECHNICAL SPECIFICATIONS

WORKING TABLE

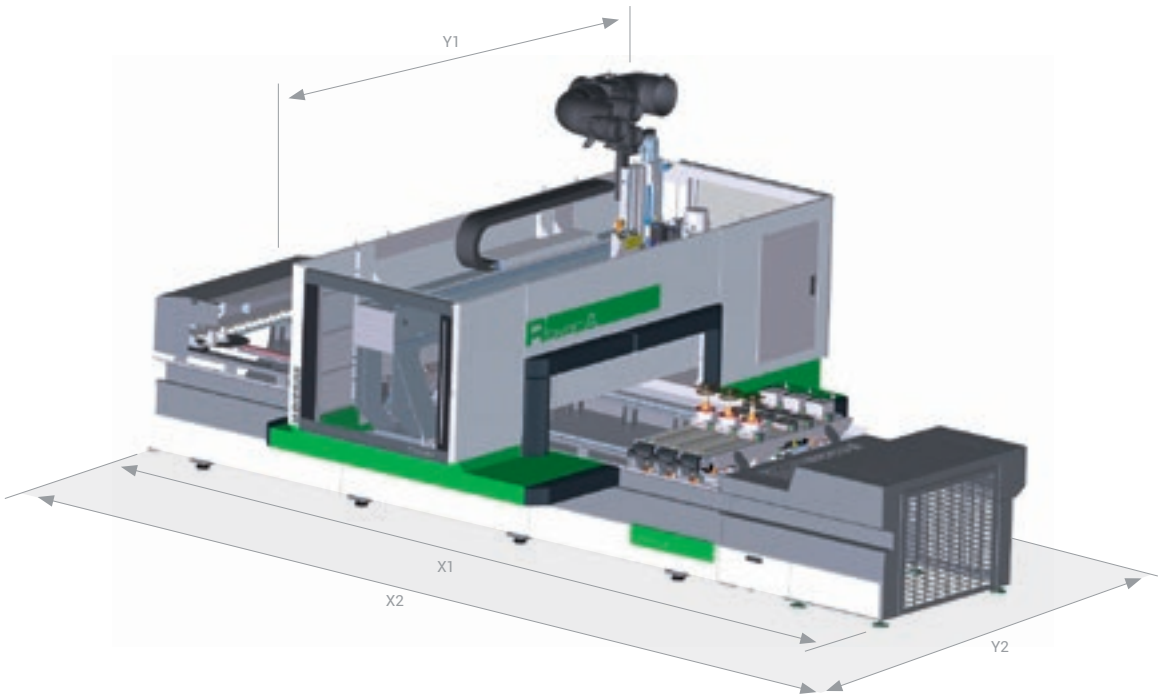
		X	Y	Z
Rover A 1232	mm/inch	3140 / 124	1260 / 50	245 / 10
Rover A 1242	mm/inch	4140 / 163	1260 / 50	245 / 10
Rover A 1256	mm/inch	5540 / 218	1260 / 50	245 / 10
Rover A 1532	mm/inch	3140 / 124	1560 / 61	245 / 10
Rover A 1542	mm/inch	4140 / 163	1560 / 61	245 / 10
Rover A 1556	mm/inch	5540 / 218	1560 / 61	245 / 10

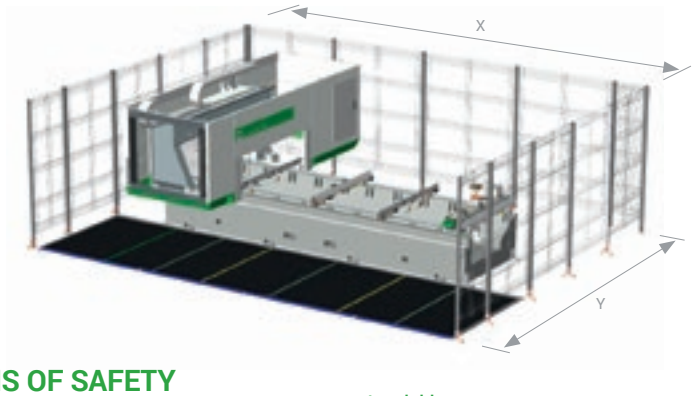
AXIS SPEED

		X	Y	Vector speed
Mats	m/foot/min	60 / 197	60 / 197	85 / 279
Bumper + photocells	m/foot/min	60/25 - 197/82	60 / 197	85/65 - 279/213
Full bumper	m/foot/min	25 / 82	60 / 197	65 / 213

FULL BUMPER FOOT PRINT

		Loadable panel	X2	X1	Y2	Y1	H
Rover A 1232	mm/inch	1350 / 53	7126 / 280	6626 / 261	4549 / 179	3549 / 140	2600 / 102
Rover A 1242	mm/inch	1350 / 53	8126 / 310	7626 / 300	4549 / 179	3549 / 140	2600 / 102
Rover A 1256	mm/inch	1350 / 53	9526 / 375	9026 / 355	4549 / 179	3549 / 140	2600 / 102
Rover A 1532	mm/inch	1650 / 65	7126 / 280	6626 / 261	4849 / 191	3849 / 151,5	2600 / 102
Rover A 1542	mm/inch	1650 / 65	8126 / 310	7626 / 300	4849 / 191	3849 / 151,5	2600 / 102
Rover A 1556	mm/inch	1650 / 65	9526 / 375	9026 / 355	4849 / 191	3849 / 151,5	2600 / 102





OVERALL DIMENSIONS OF SAFETY FENCES AND CONTACT MATS

		Loadable panel	X	Y	H
Rover A 1232	mm/inch	1350 / 53	6383 / 251	4822 / 190	2600 / 102
Rover A 1242	mm/inch	1350 / 53	7383 / 291	4822 / 190	2600 / 102
Rover A 1256	mm/inch	1350 / 53	8783 / 346	4822 / 190	2600 / 102
Rover A 1532	mm/inch	1650 / 65	6383 / 251	5122 / 206	2600 / 102
Rover A 1542	mm/inch	1650 / 65	7383 / 291	5122 / 206	2600 / 102
Rover A 1556	mm/inch	1650 / 65	8783 / 346	5122 / 206	2600 / 102

PHOTOCELLS + BUMPER FOOT PRINT

		Loadable panel	X	Y	H
Rover A 1232	mm/inch	1350 / 53	7286 / 287	4884 / 192	2600 / 102
Rover A 1242	mm/inch	1350 / 53	8286 / 326	4884 / 192	2600 / 102
Rover A 1256	mm/inch	1350 / 53	9686 / 381	4884 / 192	2600 / 102
Rover A 1532	mm/inch	1650 / 65	7286 / 287	5184 / 204	2600 / 102
Rover A 1542	mm/inch	1650 / 65	8286 / 326	5184 / 204	2600 / 102
Rover A 1556	mm/inch	1650 / 65	9686 / 381	5184 / 204	2600 / 102

H MAX = 2970 mm / 117 inch

H fences = 2000 mm / 79 inch

WORKING TABLE SYNCHRO

Length (min / max)	mm	400 / 3200 *	inch	16/ 126
Width (min / max)	mm	200 / 2200 *	inch	8/87
Thickness (min / max)	mm	8 / 150	inch	0,3/6
Weight (1 panel/ 2 panels)	Kg	150 / 75	Kg	150/75
Useful height of stack	mm	1000	inch	39
Height of stack from ground (including 145 mm Europallet)	mm	1145	inch	45

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

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.

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.


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

SERVICE &PARTS

Direct, seamless co-ordination of service requests between Service and Parts. Support for Key Customers by dedicated Biesse personnel, either in-house and/or at the customer's site.

BIESSE SERVICE

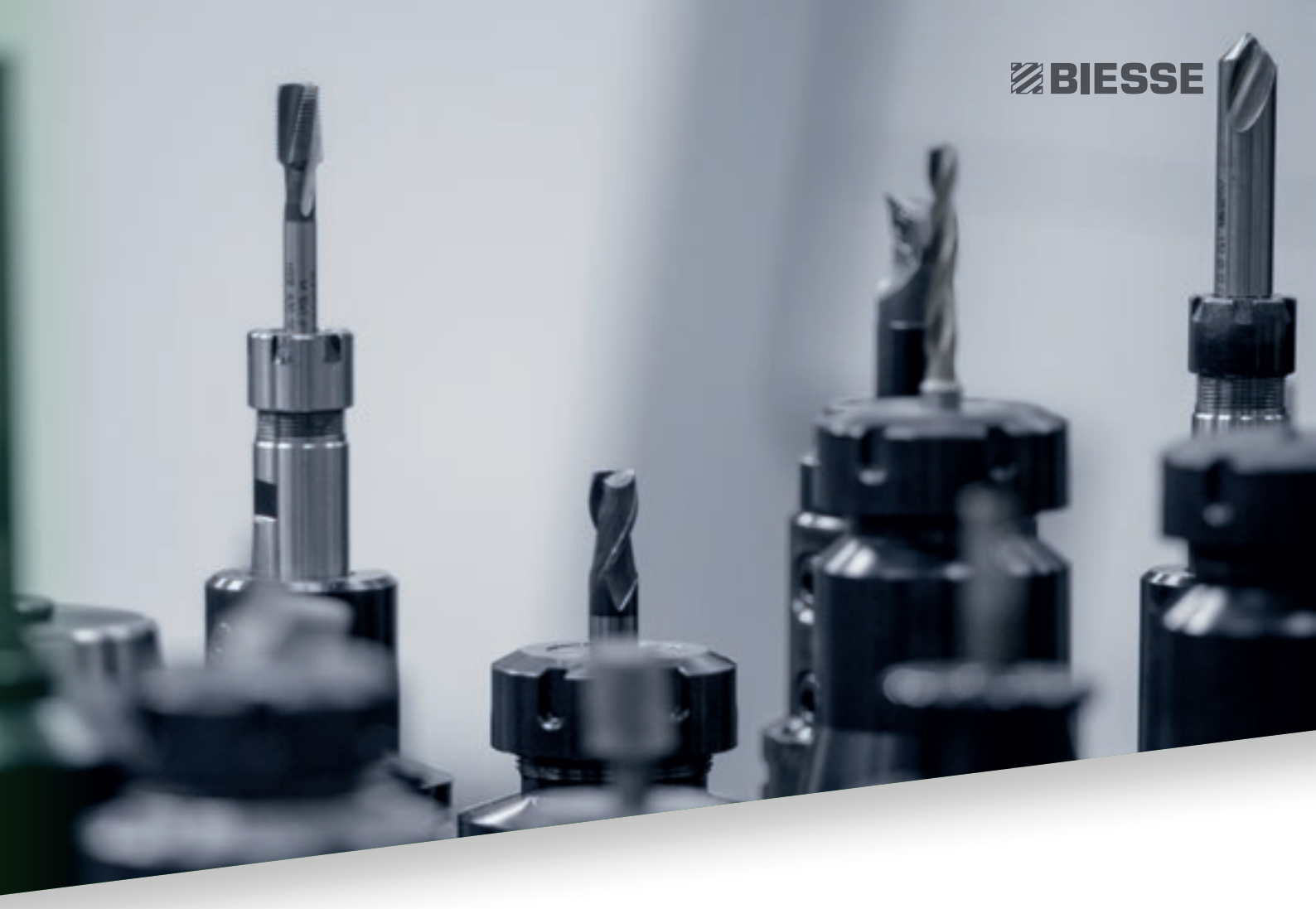
- Machine and system installation and commissioning.
- Training centre dedicated to Biesse Field engineers, subsidiary and dealer personnel; client training directly at client's site.
- Overhaul, upgrade, repair and maintenance.
- Remote troubleshooting and diagnostics.
- Software upgrade.

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.



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

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 finishing system. "We truly are a one-stop shop," Rybak said. "We have a lot of processes within our company that most of our competitors do not. We have a full woodshop and a full flat line painting line where we can paint a lot of paneling. Our metal shop is thoroughly sophisticated with CNC lasers, bending machines, and all sorts of welding machines. We also have our own installation crews. When a designer has an idea for a structure that is built in steel, aluminum, solid wood, decorative panels or a combination, we can do it and meet their deadlines." MCM's one-stop-shop approach to servicing customers has served the company well. Over the first 15 years of its existence, MCM has expanded several times and now occupies three buildings totaling 240,000 square feet and employs 250 people. Even working almost around the clock six days a week is not enough to eliminate the need for more space. "We are out the door in our current location," Rybak said. "We are planning on buying another building and having more warehouse space because a lot of our production has to be stored."

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. "Making acoustical panels is a very simple process," Rybak said. "The Skipper has 62 boring heads to drill many holes at a time in the veneered MDF panels for sound absorption. While the Skipper is drilling a panel, the same operator is using the Rover S to drill holes from the other side of the board. This makes the operation very fluent and more productive." 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
Founder

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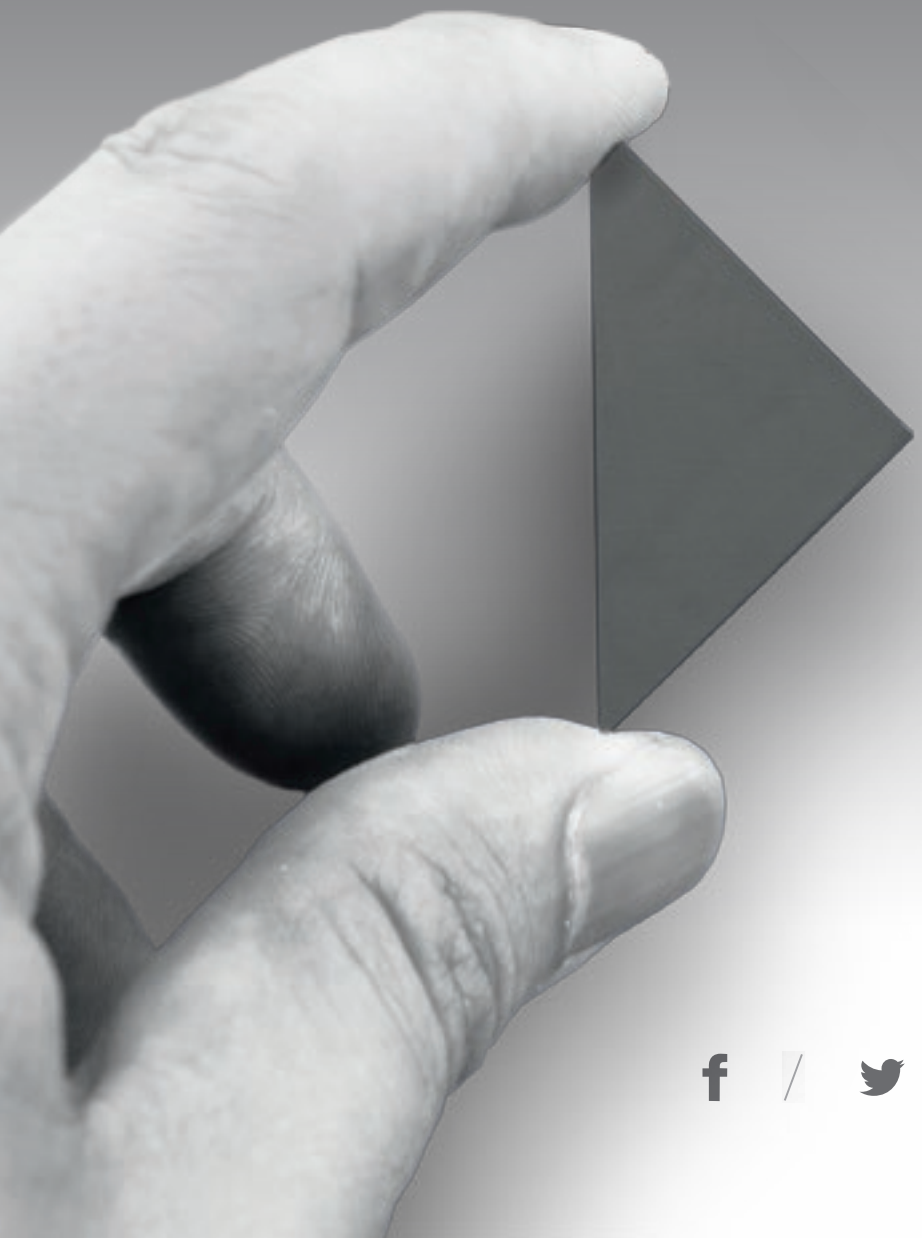
LIVE THE EXPERIENC



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