

MA STER ONE SERIES

CNC MACHINING CENTRE
FOR STONE



UNIQUE AND UNPARALLELED FOR QUALITY AND PERFORMANCE



The **Master One** is a 3-axis machining centre dedicated to the processing of stone and sintered materials. It can execute any machining operation needed in a stonemason's laboratory without sacrificing performance in any way. The Master One boasts an unbeatable quality and market competitiveness ratio, making it the perfect investment. Featuring a minimal design, but maintaining complete functionality, the Master One machining centre is suitable for every customer, from the expert to the small artisan.



MASTER_{ONE}SERIES

- ✓ RELIABLE AND SUITABLE FOR A WIDE RANGE OF MACHINING OPERATIONS: FROM KITCHEN TOPS TO MEMORIALS
- ✓ HIGH PERFORMANCE AND SPEED
- ✓ ULTIMATE SIMPLICITY WHEN TOOLING AND A WIDE RANGE OF TOOLS
- ✓ SAFE AND ERGONOMIC
- ✓ READY TO USE AND WITH REDUCED OVERALL DIMENSIONS
- ✓ SIMPLE AND INTUITIVE

SUITABLE FOR A WIDE RANGE OF MACHINING OPERATIONS: FROM KITCHEN TOPS TO MEMORIALS

The Master One series is capable of performing the most complex and varied machining operations, providing users with superb finish quality when working with natural stone, granite, marble and synthetic and ceramic materials for bathroom unit tops, kitchen tops, construction and memorials.

Ideal for all types of machining operations:

- ✔ Boring
- ✔ Milling
- ✔ Grinding and polishing
- ✔ Recesses
- ✔ Tapering
- ✔ Writing and engraving
- ✔ Engraving
- ✔ Cutting with disc saw
- ✔ Drains polished with aggregates



Complete external machining of kitchen tops on all sides, hole and drains polished.



Grinding and polishing of bathroom unit tops: internal and external hole polished.

The Master One is capable of optimising the management of both rapid and time-intensive standard machining operations. The Master One guarantees the highest precision and definition for even the most minute details when working on projects that include bas relief and 2D-3D writing, as well as offering optimal performance on recessed planes.



Inlay.



Milling.



Recesses.



Tapering.



Small solid slabs.



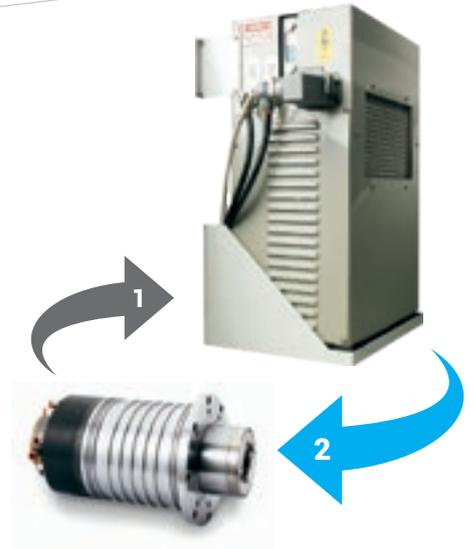
Bas relief.

RELIABLE FOR ALL MACHINING OPERATIONS



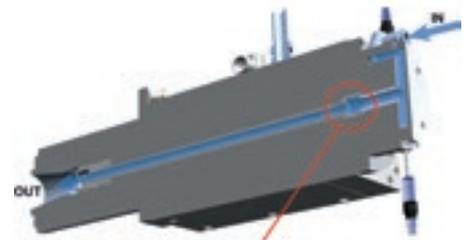
The Master range is fitted with spindles manufactured by HSD (a world leader in its sector and a Biesse Group member) that guarantee elevated power, compact dimensions and extremely high finishing standards.

- ✔ **+60% spindle lifespan and noise reduction** thanks to 4 ceramic bearings that offer greater resistance to mechanical stress.
- ✔ **Greater reliability** thanks to the use of stainless steel and the 55mm spindle shaft.



Optional **glycol-based cooling** systems with a closed circuit that guarantees constant results over time and resistance to the maximum machining stress levels.

1. **High-temperature fluid** (cooling system with heat exchanger).
2. **Low-temperature fluid**



DPC (patented) - Controlled loss distributor

A patented system that ensures excellent reliability and a long lifespan, thanks to the innovative seal system with no mechanical contact.



The machine work table is composed of an extremely rigid structure covered by a calibrated aluminium surface to ensure optimal machining results. The machine can also be set up to work in twin-station mode.



ULTIMATE SIMPLICITY WHEN TOOLING AND A WIDE RANGE OF TOOLS

The Master One offers the option of equipping the machine with a large number of ready-to-use tools for any type of machining operation, with automatic loading via the working unit.



Rear tool magazine with 23 positions.



Tool change in 10 second

The fastest solution in the world of stone, thanks to the 8-position revolver magazine on the head (6 positions with C axis).



Flat saw disc.

HIGH QUALITY COMPONENTS TO GUARANTEE RELIABILITY WITH NO COMPROMISE



Reliability guaranteed

The Master One is equipped with an integrated system for the automatic greasing of the movement axes, ensuring constant and precise maintenance every day that safeguards all mechanical components.



Rack and pinion for movement along the X and Y axis with more than twice the speed and acceleration. The helical teeth on the racks guarantee ultimate reliability.

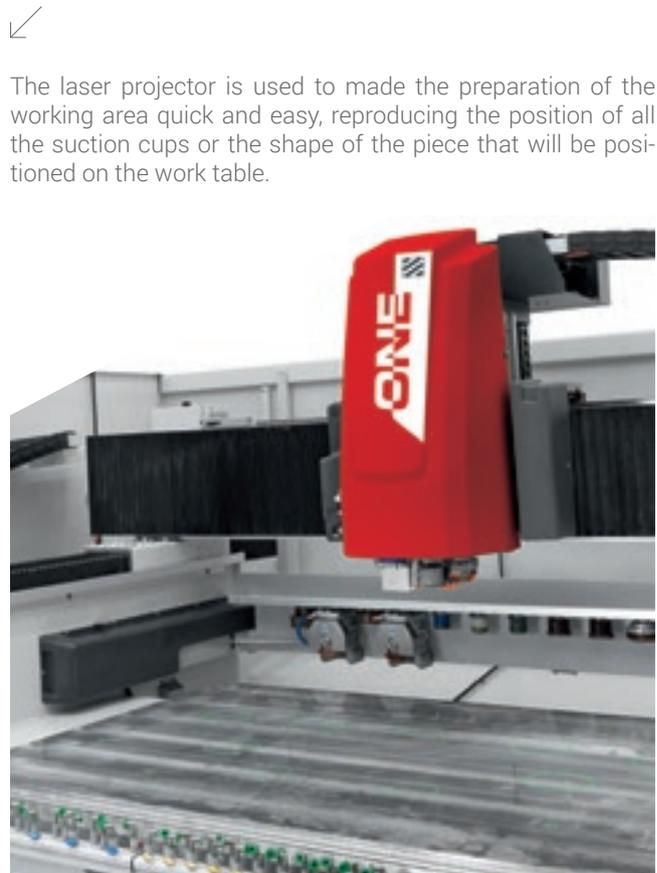
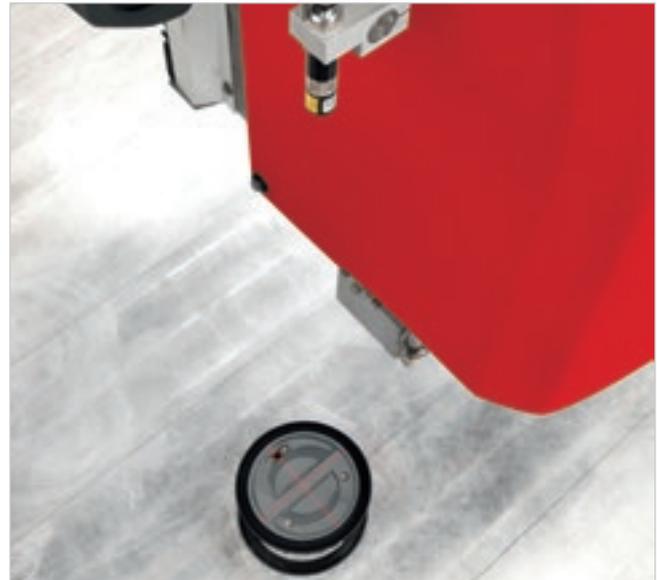
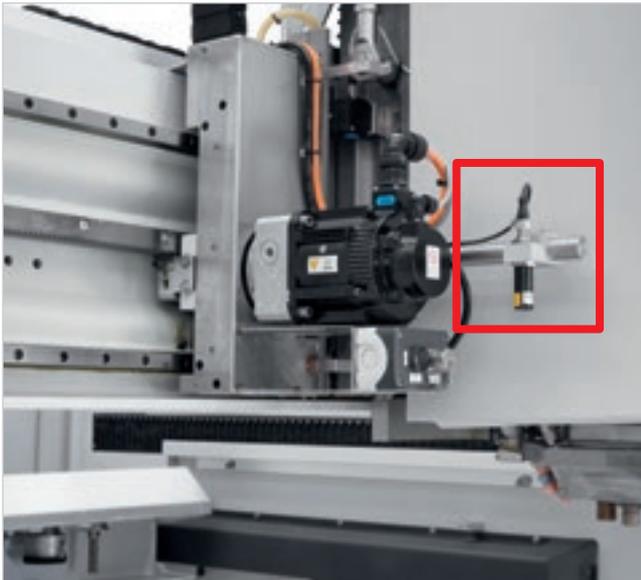


The standard issue electrical panel air conditioner is particularly suited to keeping all of the machine's electrical and electronic components in perfect working condition.

REDUCED TOOLING AND SET-UP TIMES

Tooling time reduced by up to 20% compared to the standard system

The cross-hairs laser guides the operator through the positioning of suction cups and stops, speeding up the preparation of the work surface.



The laser projector is used to make the preparation of the working area quick and easy, reproducing the position of all the suction cups or the shape of the piece that will be positioned on the work table.

HIGH PERFORMANCE

In line with requirements, the machine can be equipped either with a C Axis or a T Axis.

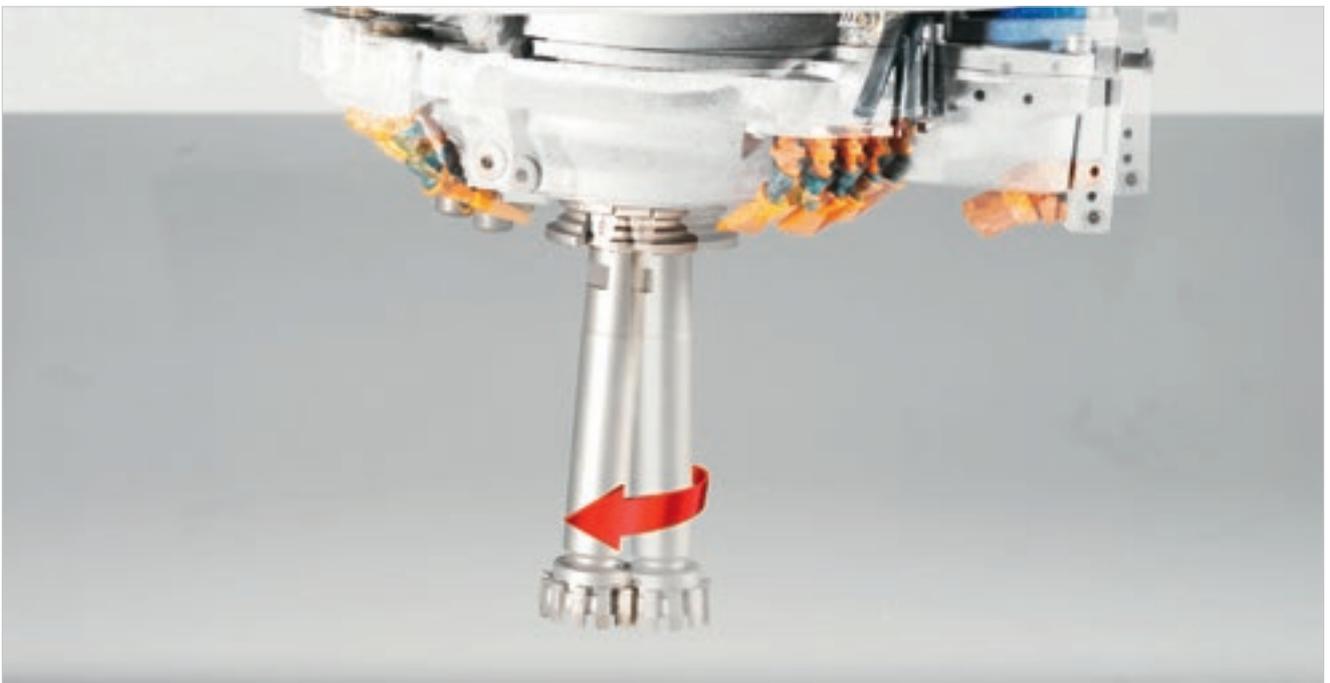
Maximum acceleration and axle speeds, minimising waiting times and enabling cycle times to be reduced.



C AXIS WITH ENDLESS ROTATION, FOR THE PERFECTLY SMOOTH AND ACCURATE EXECUTION OF EVEN THE MOST COMPLEX MACHINING OPERATIONS.



THE MACHINE CAN BE EQUIPPED WITH A 15 KW SPINDLE FOR MAXIMUM PRODUCTIVITY EVEN IN HEAVY-DUTY MACHINING OPERATIONS.



SINGLE DIRECTION TILTING T AXIS TO CREATE INCLINED RECESSES FOR KITCHEN TOPS.

INNOVATION



BIESSE TECHNOLOGY

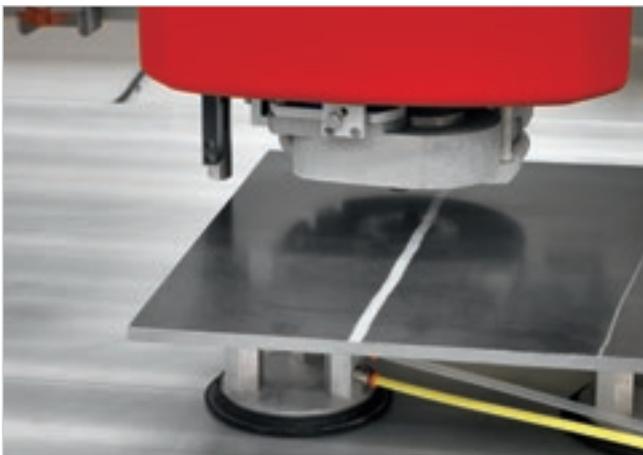
The high technological content of the world's most popular working centres satisfies the specific needs of the stone industry.

Configurations with 3 or 4 axes fitted with aggregates for managing a vast range of machining operations. For all the configurations, the components are the same as for the top-of-the-range solutions.



QUICK AND SIMPLE OPERATIONS

Maximum results, thanks to the possibility to equip the machine with a series of optional elements using top quality components.



3-axis head mechanical thickness tracer

The variable Z thickness tracer maintains a constant machining quality even on pieces with an irregular thickness.



External water pressure intensifier for perfect regulation

A circular wheel with small nozzles increases the pressure of external water. The optional device has a 3-position vertical movement to ensure that the water impact point is always the best, regardless of tool radius and height. Ideal for machining with grinding wheels and for kitchen tops.



The Master One can be equipped with a **mechanical presetter** that uses a completely automatic system to always provide a quick, simple, precise and updated measurement of the tools during machining operations, avoiding operator error.

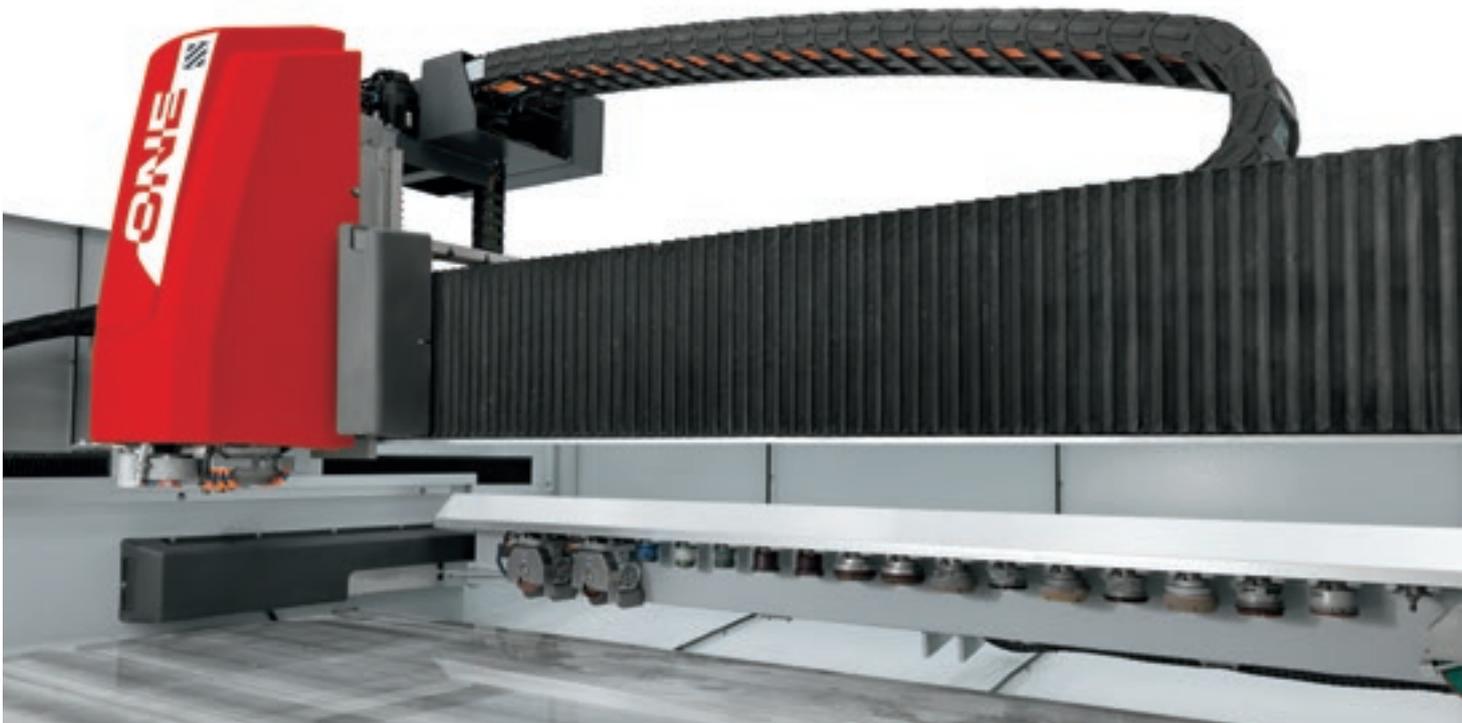


Drill dressing

The dressing device is placed near the working area for the immediate dressing of tools, to guarantee the best quality and quickest execution all the time. Ideal for ceramic materials.

REDUCED FOOTPRINT

The compact size of the Master One reduces the footprint in the factory.



Maximum machine height 2550 mm

The lowered chain guarantees a more compact machine with a reduced footprint that can be installed even in areas with limited height.

SAFE AND ERGONOMIC

Biesse has always paid the utmost attention to the health and safety of its customers. The protection of every operator during the use of the machine is of vital importance, preventing any possible distraction or error that could lead to inconvenience or even accidents.

- ▣ EC compliant, ergonomic front guards.
- ▣ Side and rear guards made of a metallic material subjected to special anti-corrosion painting cycles.
- ▣ Electric and pneumatic systems fully integrated in the machine and protected by closed doors.
- ▣ Inaccessibility of moving machine parts.
- ▣ A clean working environment (water and machining residues are not dispersed).
- ▣ Reduced noise levels, fully complying with the machinery directive.

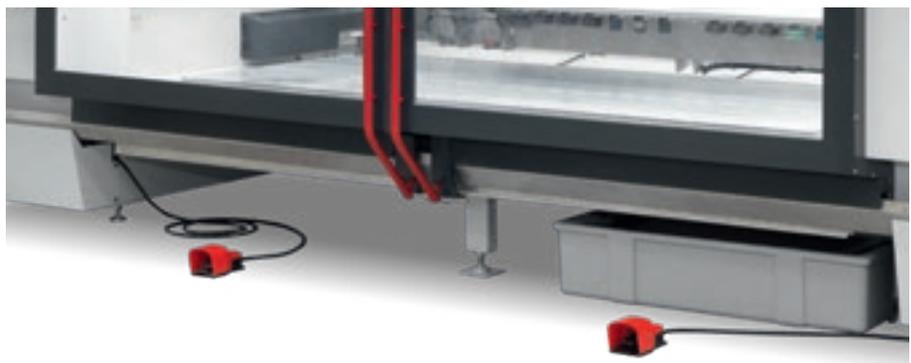


Electric safety lock with an ergonomic built-in button panel for opening doors and starting the machining operation, offering ultimate speed and comfort for the operator.



The safety compensator piston guarantees long-lasting safety and reliability by supporting the weight of the head and reducing the strain on the engine.

Option of setting up twin-station machining operations with a double pedal.



One indispensable condition for obtaining any sort of financing is the respect of the machinery directives and workplace health and safety regulations.



Optimum convenience in the operations thanks to an optional hand-held terminal with:

- ✔ Quick, simplified positioning of the stops and suction cups thanks in part to the option of tooling the work table with doors open.
- ✔ Simplified tool preparation, thanks to the optimum control of the working head directly on the piece to be machined.
- ✔ No barrier between the operator and the Master.
- ✔ Machining speed control.
- ✔ Emergency button always near the operator's hand.
- ✔ Machining Start, Pause and Restart button.

Optional 4-colour safety traffic light provides a visual signal of the machine's status.



Built-in control panel, with optional touch screen, on the left side of the machine, with the option of installing it on the right side as well.

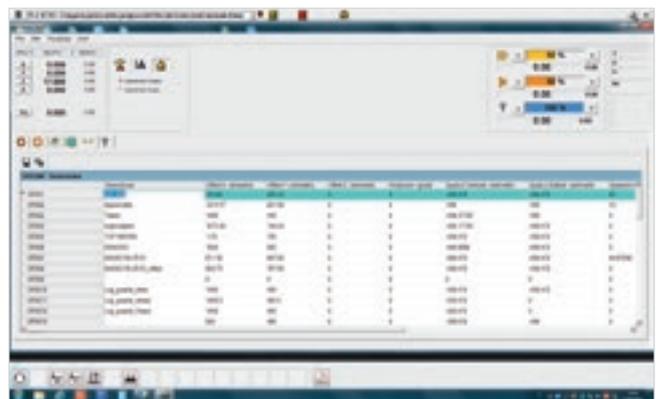
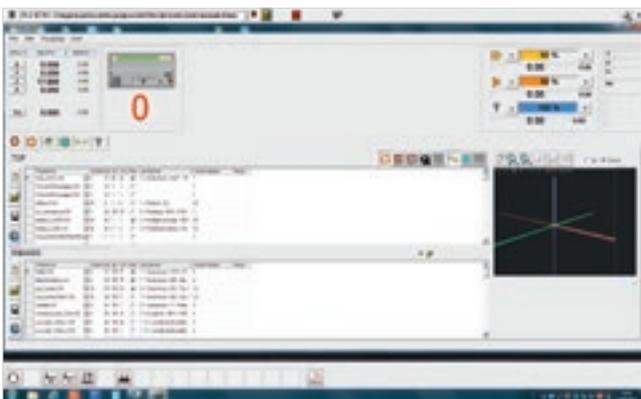
QUICK AND SIMPLE OPERATIONS

Extremely easy to use, thanks to the ergonomic console and operator interface.

The use of a PC with Windows guarantees a particularly easy, user-friendly approach for the operator and allows for CAD-CAM programming directly beside the machine.

The user interface in a Windows environment allows the operator to:

- easily set the work list to optimise production;
- rapidly handle the work origins and tool parameters;
- see the execution time for each piece.



Optional bar code reader for the automatic loading of work list programs and to avoid operator error.

INDUSTRY 4.0 READY

Industry 4.0 is the latest industry frontier, based on digital technologies and machines that speak to the companies. The products can be interconnected with the production processes via smart networks.



Biesse's commitment is to transform our customers' factories with real-time technology, ready to guarantee digital manufacturing opportunities, with smart machines and software packages becoming vital tools that facilitate the daily tasks of people all over the world processing glass, stone, metal and more. Our philosophy is a practical one: to supply entrepreneurs with solid data that can help them to lower their costs, optimise their processes and improve their results.

And that means being 4.0 ready.

ALL FUNCTIONS JUST A CLICK AWAY

EASYSTONE IS CAD/CAM SOFTWARE SPECIALISED FOR THE MACHINING OF MARBLE, GRANITE, STONE AND SYNTHETIC MATERIALS USING CNC MACHINING CENTRES. IT IS USED WIDELY IN THE SECTOR AND ALLOWS FOR THE EXECUTION OF THE MOST COMMON MACHINING OPERATIONS FOR STONE. THE SOFTWARE IS COMPATIBLE WITH PREVIOUSLY INSTALLED EASYSTONE PACKAGES AND ALLOWS FOR FLEXIBLE CONFIGURATION ON THE BASIS OF THE CUSTOMER'S NEEDS.

- **Simple and intuitive**

It can even be used by individuals who don't have specialised computer skills: all functions are "just a click away".

- **Complete**

Manages every aspect of CNC machining at 360°, guiding the operator from the design to the distribution of the pieces on the work table, to collision control with 3D simulations, to the optimisation of the machining operation workflow for the tools, to the generation of the machine programs.

- **Automated**

The pieces to be created can be designed rapidly thanks to a library of parametric components. The automatic CAM module can pair the machining operations with the pieces automatically.

- **Ideal for every type of machining operation**

Allows for the programming of all the typical machining operations used on stone: shaping and polishing edges, kitchen tops, bathroom unit tops, engraving, bas relief, shower trays, shaping and finishing solid pieces, polishing surfaces for 5-axis machining operations, using all types of tools.

EASY STONE

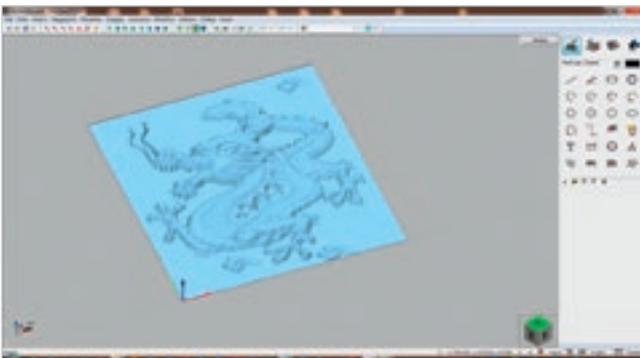
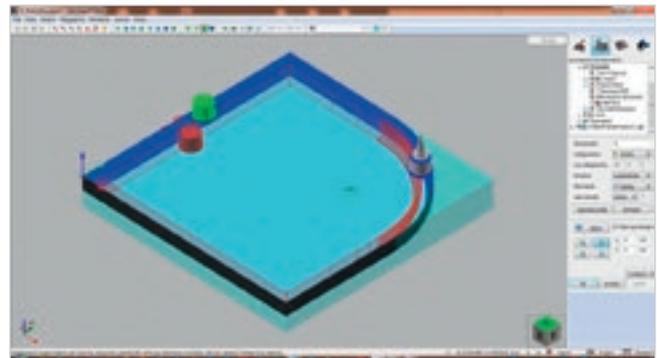
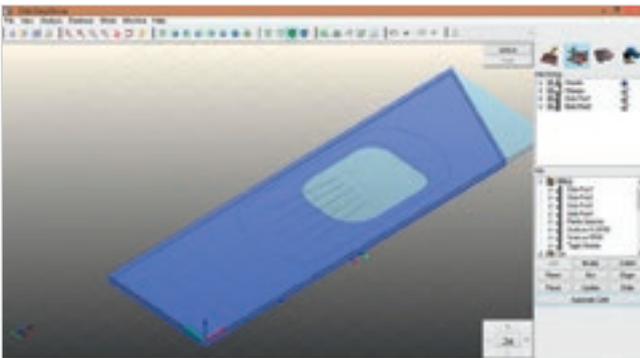
DESIGNED TO ALLOW THE EASY PROGRAMMING OF MACHINING OPERATIONS FOR STONE TO BE EXECUTED BY CNC MACHINING CENTRES, BRINGS OUT THE POTENTIAL OF THE MASTER RANGE.



EASYSTONE: INTUITIVE AND IMMEDIATELY ACCESSIBLE EVEN FOR THOSE WITH LESS EXPERIENCE

EASYSTONE MASTER - 3 AXIS

- ✔ Create and import 2D and 3D designs in the most widely used standard formats (.dxf, .stl, .iges).
- ✔ Program 2D machining operations on sheets: boring, milling, edgbanding, engraving, recessing, tracing.
- ✔ Program machining operations for the 3-axis emptying and finishing of solid pieces (shower trays, sinks, tubs, vases).
- ✔ Option of importing images using standard formats (.jpg, .bmp) and converting them into surfaces to program the machining of bas relief and high relief.
- ✔ Simulates the removal of material.



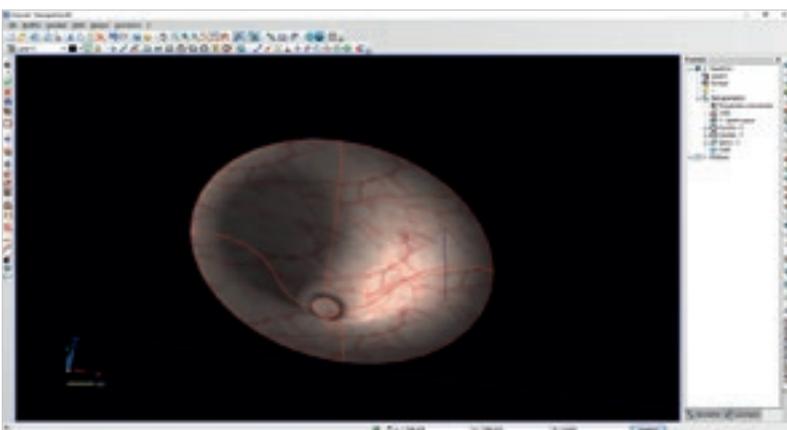
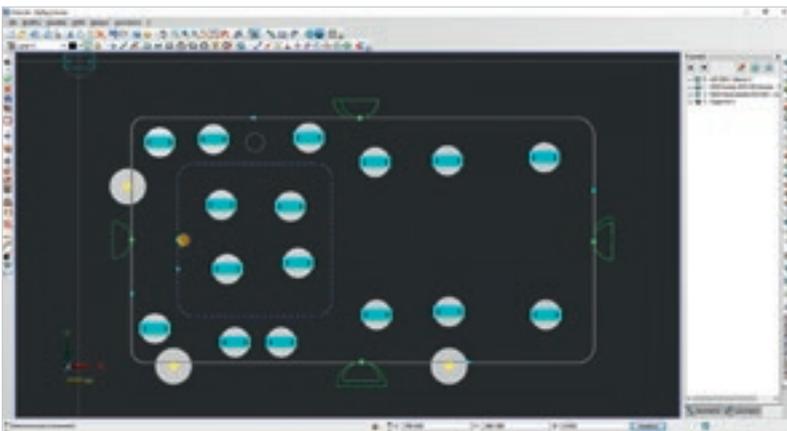
OPTIONAL PACKAGES

- ✔ **Automatic CAM:** automated pairing of machining operations with the pieces on the basis of rules set by the user for design properties, such as geometry layers.
- ✔ **Office station, multi-centre and network key:** option of generating different types of programs for the office and for the Master from a single station near the machine and sharing the EasySTONE licence with up to 10 stations connected to the network.
- ✔ **Machining operations from below:** option of programming machining operations for boring and cutting from below.

ICAM: THE MOST SIMPLE ANSWER

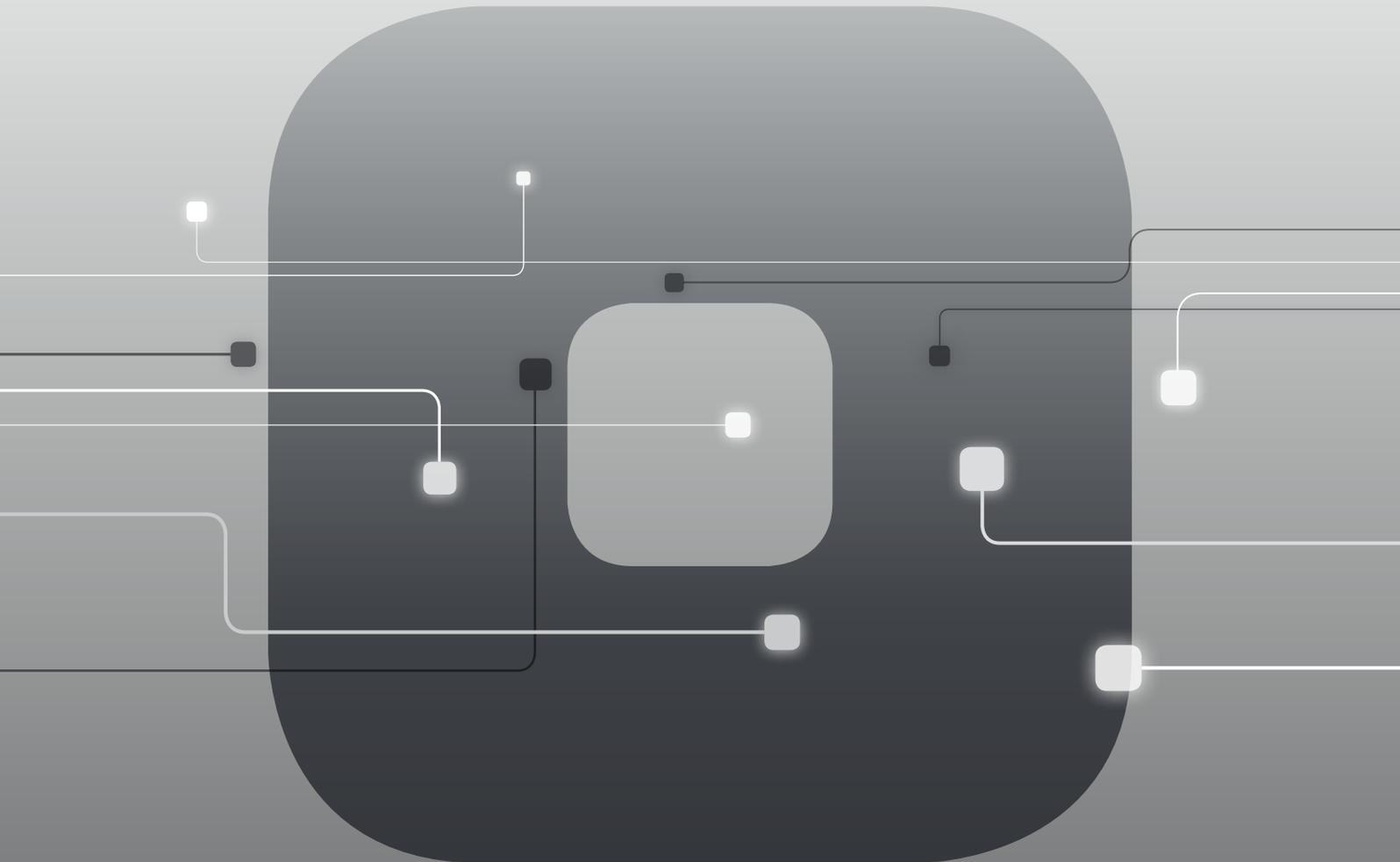
THE MASTER ONE CAN ALSO BE EQUIPPED WITH ICAM SOFTWARE, WHICH IS EXTREMELY RELIABLE AND EASY TO USE. WITH OVER 6,500 PACKAGES INSTALLED, ICAM GUARANTEES THE ELEVATED COMPETENCE OF THE GLOBAL SERVICE. COMPATIBLE WITH THE INTERMAC MACHINES ALREADY INSTALLED.

- ▶ PERFECTLY COMPATIBLE WITH INTERMAC WATERJET SYSTEMS.
- ▶ COMPATIBLE WITH INSTALLED INTERMAC MACHINES.



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

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

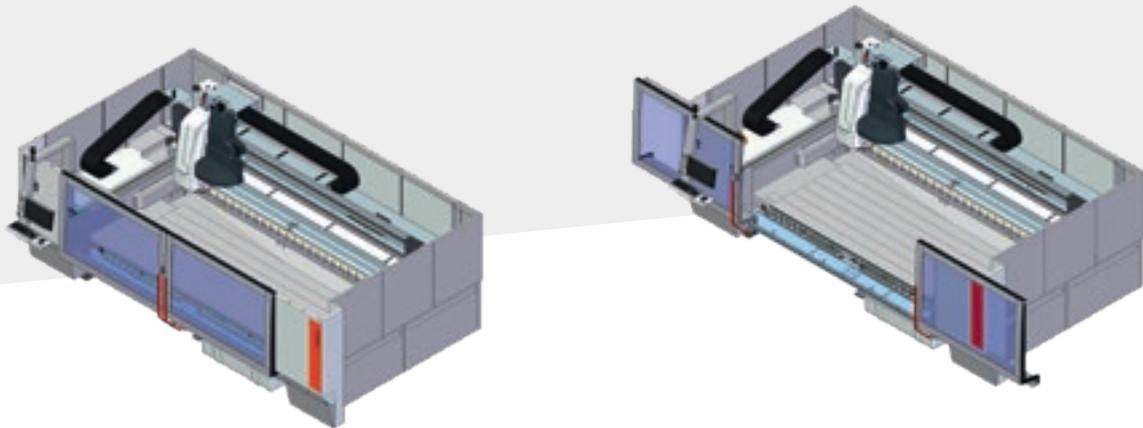
96%

OF SPARE PARTS ORDERS
DELIVERED IN FULL ON TIME

88%

OF CASES SOLVED WITH
THE FIRST ON-SITE VISIT

TECHNICAL SPECIFICATIONS



		Master One	Master One C
Maximum machinable piece size (3-axis grinding with tool of diameter 100mm)	mm	3300x1500 *	3300x1500 *
Z axis stroke	mm	285	285
Overall machine dimensions	mm	L: 7650 (doors open and vacuum tank) L: 7050 (doors closed and vacuum tank) L: 6200 (doors closed without vacuum tank) W: 4100 H: 2550	L: 7650 (doors open and vacuum tank) L: 7050 (doors closed and vacuum tank) L: 6200 (doors closed without vacuum tank) W: 4100 H: 2550
T axis stroke - only pneumatic (optional)		0° / -3°	0° / -3°
C axis stroke		-	∞
Max axis speed (X - Y - Z)	m/min	70 - 70 - 19	70 - 70 - 19
Work table height	mm	740	740
Electrospindle power in S1**	kW	9,2	9,2
Max electrospindle rotation	rpm	12000	12000
Tool coupling		ISO 40	ISO 40
Maximum tool diameter	mm	150	150
Fixed tool magazine	positions	23	-
Mobile tool magazine	positions	-	23
Tool magazine on head (optional)	positions	8	6
Working air pressure	bar	7	7
Max air consumption	NI/min	200	200
Internal water consumption	l/min	10,5	10,5
Power required	kW	21	21

* The maximum size that can be machined changes on the basis of the optionals installed on the work table.

**Available as optional the increase of the electrospindle power in S1 from 9.2 to 15 kW.

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

Weighted sound pressure level A (LpA) during machining at the operator's workstation on the vane-pump machine Lpa=79dB(A) Lwa=96dB(A) Weighted sound-pressure level A (LpA) at the operator's workstation and sound power level (Lwa) during machining on the cam-pump machine Lwa=83dB(A) Lwa=100dB(A) Measurement uncertainty K 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.

MADE WITH BIESSÉ

FROM NATURAL STONE TO THE BEST MANUFACTURED PRODUCTS

Generelli SA, a company from Ticino with headquarters in Riviera, Switzerland, has been converting natural stone into superb manufactured products for over forty years. At Generelli the most advanced stone processing techniques are constantly paired with the skilful artisan craftsmanship fostered in Ticino. With this mission the Swiss company, which was founded in **1974** and directed by founder **Generelli Guido** before his son **Moreno** took the helm, has now reached the third generation with **Matteo**. Natural stone, quartz compounds, plastic materials and ceramic are the daily bread of creativity and are converted into art, "from a simple granite windowsill to more complex 3D machining," says Moreno as he explains how slabs of stone become "everyday" objects: not just surfaces for kitchens and bathrooms, but also stairs, floors,

fireplaces and swimming pools, destined to enrich and highlight living spaces all over the world.

"Thanks to Intermac technology we can achieve complex shapes, and increase productivity and autonomous work." Nothing is outsourced: Generelli carries out every single step internally, to guarantee the highest quality. "Today technology is an integral and irreplaceable part of our company: we wouldn't be where we are today without it" Matteo confirmed. If that technology comes from Italy, which is where Moreno believes the best companies are still to be found, all the better. For production, in fact, the crown goes to the **Master 33** and the **Primus 5-axis** waterjet by Intermac, a company whose history of collaboration with Generelli dates all the way back to 1996. And it's the Primus, one of the newest additions in

production, that has helped the company surpass previous limits, as Matteo explains: "With it we are capable of producing shapes of various sizes, with very precise cuts, and can create double-curved 3D inlays, increasing productivity and autonomous work". Equipped with the latest generation of tools, "with technical features that are more evolved compared to the past", these mechanical powerhouses were designed for power and precision and anticipate a time in the future when, as envisioned by Matteo, "technology will increasingly be present throughout production and will play a greater role in designing and programming thanks to increasing levels of intelligence and autonomy. But all this can only be achieved if the companies that use these machines are able to evolve with the machines".



Founded in Italy,
international native.

We simplify your
manufacturing
to make the process
of any material



ur
g process
potential
I shine.

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.

Join the
Biesse world.

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



