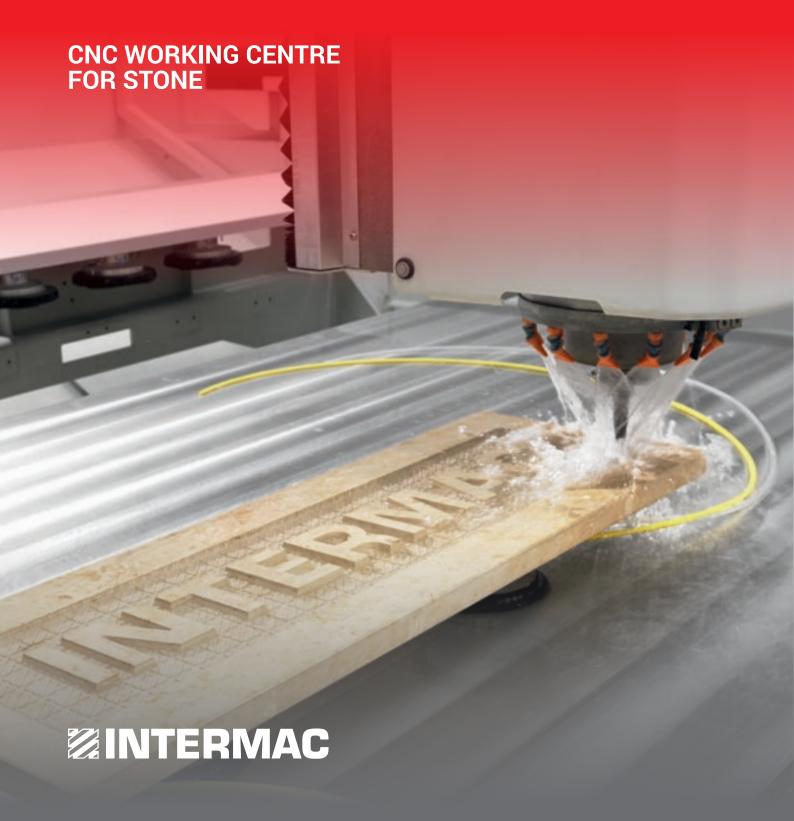
STES SERIES



LATEST-GENERATION TECHNOLOGY



THE MARKET CALLS FOR

a change in production processes to meet the ever-growing request for personalised products to satisfy customers' specific needs. This is coupled with the need to maintain high quality standards whilst offering product customisation with quick and clearly-defined delivery times.

INTERMAC RESPONDS

with manufacturing technologies that enhance and support technical abilities and knowledge of processes and materials. The **Master Series** is the range of Intermac machining centres dedicated to stone processing. These technologies can machine sheets of natural materials, ceramics and synthetic materials used for floors, façades and cladding, furnishings, kitchen tops and funerary applications. The all-new and improved Master range maintains the quality and reliability that has always characterised Intermac technology, making it an industry-leading company and an iconic point of reference in its field.



MASTER SERIES

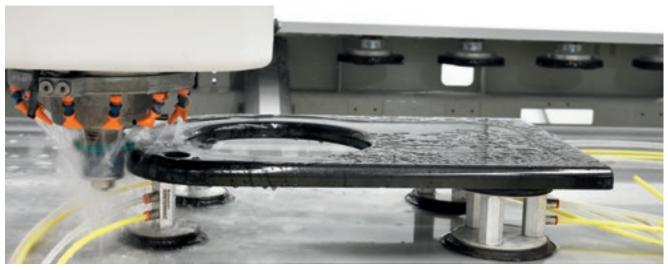
- UNPRECEDENTED QUALITY AND FINISH.
- FLEXIBILITY AND VERSATILITY IN ALL MACHINING OPERATIONS AND WITH ALL MATERIALS, FOR UNRIVALLED PRODUCTIVITY.
- SUPERB PERFORMANCE EVEN WHEN CARRYING OUT THE MOST COMPLEX MACHINING OPERATIONS.
- REDUCED TOOLING TIMES.
- * EXTENSIVE CHOICE OF TOOLS, READY FOR ALL TYPES OF MACHINING OPERATION.
- FUNCTIONAL DESIGN AND ERGONOMIC PROTECTION FOR OPTIMUM VISIBILITY AND MAXIMUM SAFETY DURING MACHINING.

UNPRECEDENTED QUALITY AND FINISH

The Master 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 bath tops and kitchen tops.







MASTER PROCESSING CENTRES ARE DESIGNED TO OFFER OPTIMUM FINISH QUALITY ON SHEETS AND BLOCKS OF NATURAL AND SYNTHETIC MATERIALS AND CERAMICS, GUARANTEEING MAXIMUM RELIABILITY AT ALL TIMES.



FLEXIBLE AND VERSATILE IN ALL MACHINING OPERATIONS AND WITH ALL MATERIALS





- Boring
- Milling
- Grinding and polishing
- Recesses
- Cup grinding
- Tapering
- Writing and engraving
- Ageing
- Engraving
- Profiling





QUALITY THAT IS UNE-QUALLED ON THE MAR-KET

Cup grinding and polishing on the external profile and the internal squared bore, using an aggregate with magnetic tool change.





Drainage channels on a tilted table for kitchen tops.



45° disc cuts for joints.



Aggregate for undercuts on kitchen tops.

ENDLESS POSSIBILITIES

The solid 5-axis hi-tech working head is capable of machining kitchen tops and slabs and blocks with perfect results, demonstrating the renowned quality of Intermac work centres.



Disc cut at any angle.



Polishing of rounded profiles on slabs.

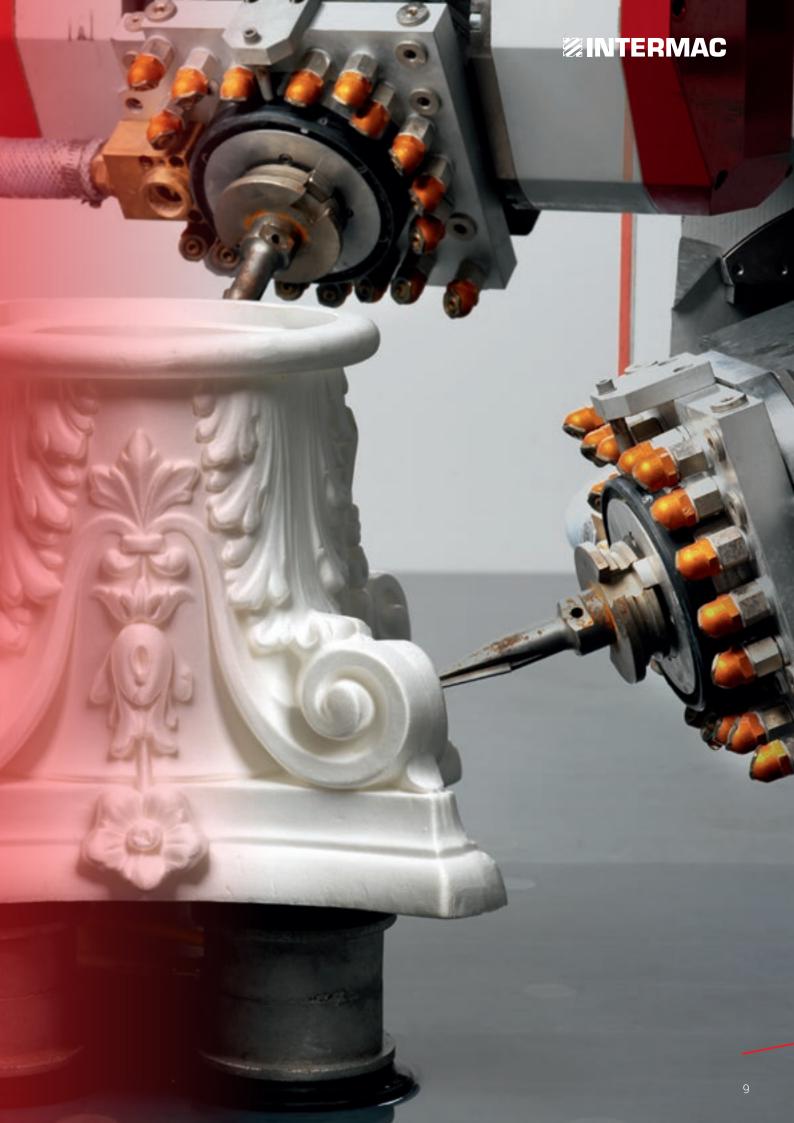


Bevel with variable angle.

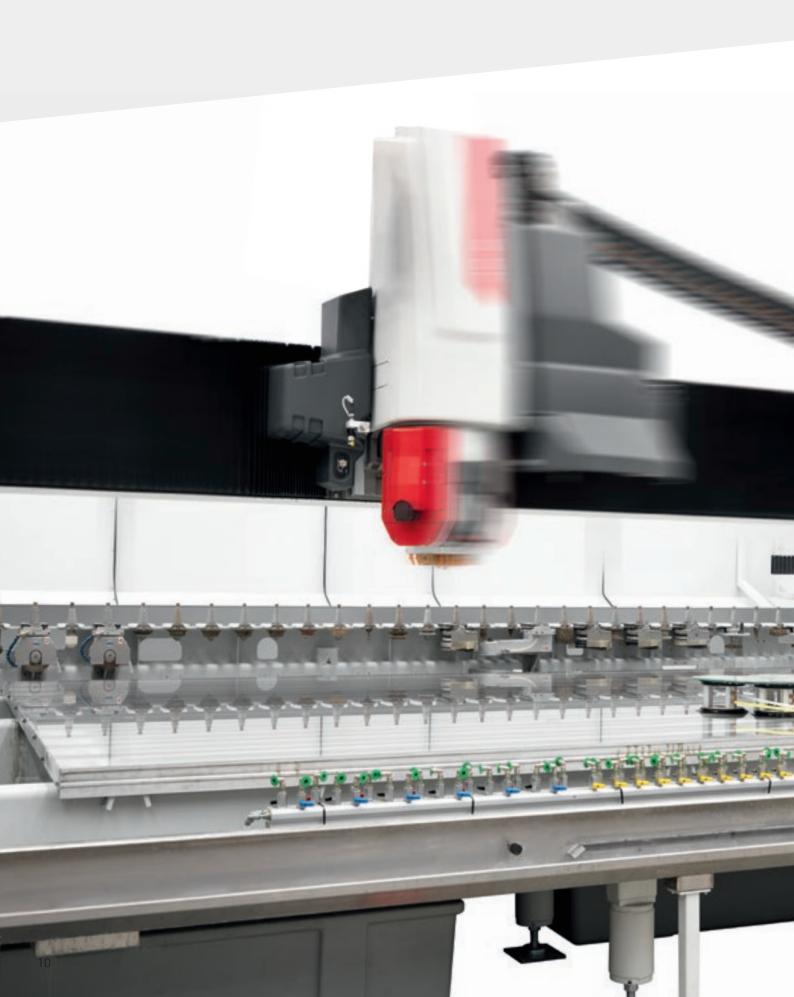


Cup grinding of the external edge.

5-AXIS TECHNOLOGY High level technology for the best results and extremely easy to use. The 5-axis head with endless rotation C axis and tilting A axis (from -90° to +90°) ensures excellent flexibility and pushes the limit for the execution of complex machining operations.



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



Tilting T axis (\pm 2.5°) for making recesses for kitchen tops on the tilted table.

CUSTOMISABLE ACCORDING TO REQUIREMENTS





The size of the work table is optimised for all production requirements.



/

The dual height of the work table (525 or 730 mm) simplifies loading and unloading of panels in line with the varying requirements.





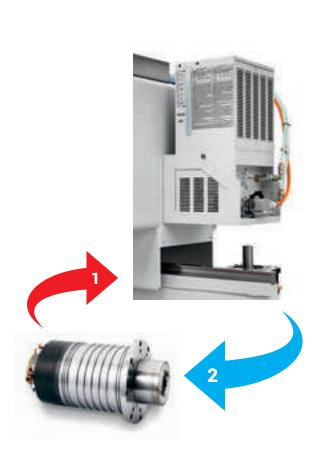
Master processing centres can also be configured in the Plus version for companies that need to machine particularly thick pieces.

MAXIMUM MACHINING RELIABILITY AND PRECISION



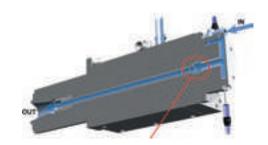


- +60% spindle lifespan and noise reduction thanks to 4 ceramic bearings that offer greater resistance to mechanical stress.
- Greater reliability thanks to the use of stainless steel and the 55mm spindle shaft.



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.



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Spindle absorption is constantly measured by the NC, and the pressure exerted by the tool on the piece is then proportionally adjusted to guarantee the best possible finish quality.





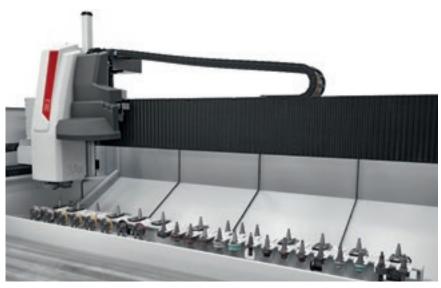
The entire Master range is equipped with an integrated system for the automatic greasing of the movement axes, ensuring constant and precise maintenance every day.

WIDE RANGE OF TOOLS READY TO USE ON THE MACHINE

The Master Series 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 single row magazine.



Rear dual row magazine.



8-position rotary magazine on the head, reducing the time taken to replace the most frequently used tools.



Magazine dedicated to tool change operations for aggregates, with magnetic change.

Maximum results thanks to the ability to equip the machine with high quality components.



The mechanical pre-setter checks the degree of wear on the diamond tools (with a frequency set by the machine operator) and automatically updates the tool parameters in the machine control, thereby guaranteeing constant machining results over time and preventing potential operator error.

The dressing devices are positioned near the working area for fast, easy tool dressing operations that guarantee constant top quality and speedy execution. The dressers make the Master fully automatic, even for the longest machining operations, which means that manual operations are also simplified.





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.

REDUCED TOOLING AND SET-UP TIMES



The laser projector is used to made the preparation of the working area quick and easy, reproducing the position of all the suction cups and pieces to be machined on the table and preventing head movements.

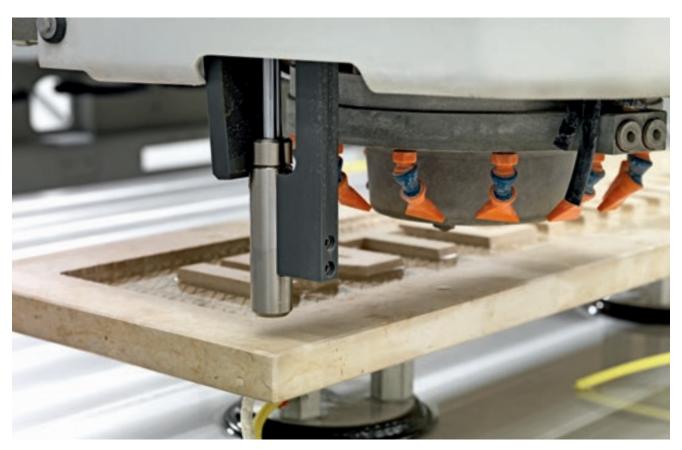


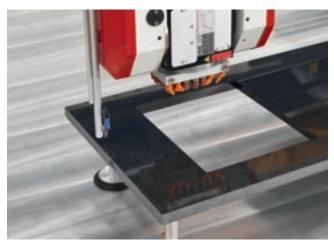


The cross-hairs laser guides the operator through the positioning of suction cups and stops, speeding up the preparation of the work surface.

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3-axis head mechanical thickness tracer.





The variable Z thickness tracer is capable of preserving constant quality when writing on, grinding, milling and scoring pieces of irregular thickness.

EASE OF USE







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

- Quick, simple positioning of the stops and suction cups thanks to the option of tooling the work table with doors
- Simplified tool preparation, thanks to the optimum control of the working head directly on the piece to be machined.
 - No limits between operator and Master
- Machining speed control Emergency button always near the operator's hand
- Start buttons for the two machining stations
- Machining pause and restart button.

EASYSTONE: 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.



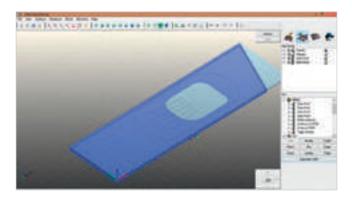
EASYSTONE: INTUITIVE AND IMMEDIATELY ACCESSIBLE INCLUDING BY LESS EXPERIENCED USERS

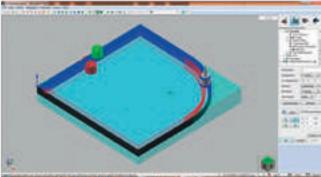
EASYSTONE MASTER - 3 AXIS

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

EASYSTONE MASTER - 5 AXIS

Besides the EasySTONE Master 3-Axis functions, allows for the programming of 5-axis machining operations (bevels, capitals, statues).

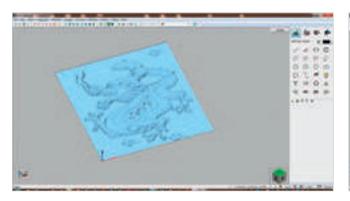


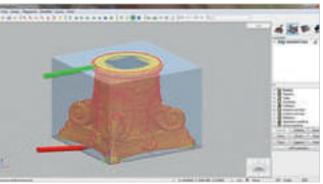


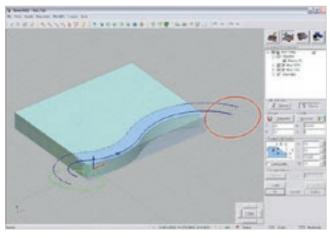
EasySTONE

OPTIONAL PACKAGES

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







ICAM: THE MOST SIMPLE ANSWER



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



HIGH TECH BECOMES ACCESSIBLE AND INTUITIVE

MASTER MACHINES CAN BE EQUIPPED WITH BSOLID SOFTWARE. BSOLID IS FULLY PARAMETRIC 2D/3D CAD CAM SOFTWARE THAT PROVIDES A SINGLE PLATFORM CAPABLE OF CARRYING OUT EVERY TYPE OF MACHINING OPERATION, THANKS TO A WIDE RANGE OF FUNCTIONS DEDICATED TO THE SECTOR.



PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

Intermac 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.



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

With Master working centres, the operator is protected by:

- Active safety features in the front protection devices and rotation magazine.
- Ergonomic front guards of a suitable height that are also explosion-proof (certified by external bodies with "detonation" tests).
- 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.



The Master series is equipped with ergonomic protection devices that enable better visibility of the machining operation during the process.



INTERMAC SERVICE

- Machine and line installation and start-up.
- Training centre for Intermac field technicians and subsidiary/dealer personnel; customer training directly at the customer's site.
- Overhaul, upgrade, repairs and maintenance.
- Remote diagnostics and troubleshooting.
- Software upgrade.

85

Intermac field technicians in Italy and worldwide.

20

Intermac technicians working in Teleservice Centre.

35

certified dealer technicians.

50

training courses in a variety of languages every year.



The Biesse Group promotes, cares and develops direct and constructive relationships with the customers to meet their needs, improve after-sales products and services through two dedicated areas: Intermac Service and Intermac Parts. With its global network and highly specialised team, the company offers on-site and on-line assistance and spare parts for machines and components anywhere in the world, 24/7.

INTERMAC PARTS

- Original Intermac spare parts and spare parts kits customised to suit the machine model.
- Spare part identification support.
- Offices of DHL, UPS and GLS couriers located within the Intermac spare parts warehouse, with multiple daily pick-ups.
- Optimised order dispatch time, thanks to a global distribution network with de-localised, automated warehouses.

95%

of machine downtime orders dispatched within 24 hours.

95%

of orders dispatched on time.

30

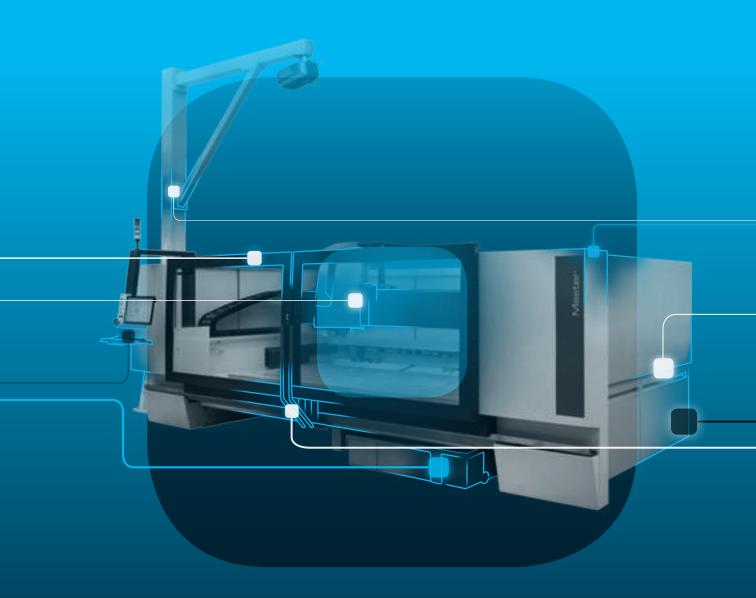
spare parts staff in Italy and worldwide.

150

orders processed every day.

SPHIA

GREATER VALUE FROM MACHINES



SOPHIA is the IoT platform created by Intermac 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 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 is the easy new, user-friendly and personalised tool for ordering Intermac 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.





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.





Intermac'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 who machine 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.

COMPLETE RANGE FOR STONE MACHINING

INTERMAC.COM DONATONI.EU MONTRESOR.NET

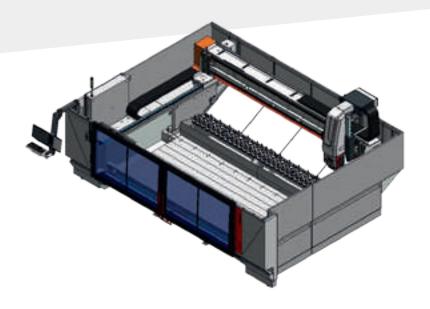
INTERMAC







TECHNICAL SPECIFICATIONS



| OVERALL DIMENSIONS | 33.x | 38.x | 45.x | 45.5 Plus |
|--|----------------|----------------|----------------|----------------|
| Overall machine dimensions LxWxH MAX | 3490x6250x2600 | 3895x6750x2600 | 4420x7455x2600 | 4420x7455x3175 |
| Overall machine dimensions LxWxH max equipped with side tool magazine | 3490x6510x2600 | 3895x7010x2600 | 4420x7715x2600 | 4420x7715x3175 |
| Overall machine dimensions LxWxH max equipped with rear tool magazine single raw | 3895x6250x2600 | 4945x6750x2600 | 5470x7455x2600 | 5470x7455x3175 |
| Overall machine dimensions LxWxH max equipped with rear tool magazine double raw | 4525x6250x2600 | 4945x6750x2600 | 5470x7455x2600 | 5470x7455x3175 |

⁽L=length W=width H=height)

Overall dimensions are intended with closed doors, without considering the hanging control panel (front, side tool magazine, electrical control cabinet). L + 1000 mm considering maximum dimension of hanging control panel.

| MASTER - 3 AXIS | | Master 33.3 | Master 38.3 | Master 45.3 |
|---|---------|-----------------|---------------|---------------|
| Maximum machinable piece size (3-axis grinding with tool of diameter 100mm) | mm | 3,300 x 1,600 * | 3,800 x 2,000 | 4,500 x 2,500 |
| Z axis stroke | mm | 465 | 465 | 465 |
| C axis stroke (optional) | | ∞ | ∞ | 00 |
| T axis stroke (optional) | | +/-2.5° | +/-2.5° | +/-2.5° |
| Max axis speed (X, Y, Z) | m/min | 60, 70, 18 | 60, 70, 18 | 60, 70, 18 |
| Work table height ("high table" version) | mm | 535 (740) | 535 (740) | 535 (740) |
| Electrospindle power In S1 (S6) | kW | 15 (18) | 15 (18) | 15 (18) |
| Max electrospindle rotation | rpm | 12000 | 12000 | 12000 |
| Tool coupling | | ISO 40 | ISO 40 | ISO 40 |
| Tool magazine for | up to | 53 | 61 | 69 |
| Power required | kW / HP | 22,5 / 30 | 22,5 / 30 | 22,5 / 30 |

^{*} Depending on the configuration of the tool magazine.

| MASTER (3 AXIS) PLUS | | Master 33.3 Plus | Master 38.3 Plus | Master 45.3 Plus |
|---|---------|------------------|------------------|------------------|
| Maximum machinable piece size (3-axis grinding with tool of diameter 100mm) | mm | 3,300 x 1,600 * | 3,800 x 2,000 | 4,500 x 2,500 |
| Z axis stroke | mm | 650 | 650 | 650 |
| C axis stroke (optional) | | ∞ | ∞ | ∞ |
| T axis stroke (optional) | | +/-2.5° | +/-2.5° | +/-2.5° |
| Max axis speed (X, Y, Z) | m/min | 60, 70, 18 | 60, 70, 18 | 60, 70, 18 |
| Work table height ("high table" version) | mm | 535 (740) | 535 (740) | 535 (740) |
| Electrospindle power In S1 (S6) | kW | 15 (18) | 15 (18) | 15 (18) |
| Max electrospindle rotation | rpm | 12000 | 12000 | 12000 |
| Tool coupling | | ISO 40 | ISO 40 | ISO 40 |
| Tool magazine for | up to | 53 | 61 | 69 |
| Power required | kW / HP | 22,5 / 30 | 22,5 / 30 | 22,5 / 30 |

^{*} Depending on the configuration of the tool magazine.

MACTED (E AVEC) DI LIC

| MASTER (5 AXES) PLUS | | Master 33.5 Plus | Master 38.5 Plus | Master 45.5 Plus |
|---|---------|------------------|------------------|------------------|
| Maximum machinable piece size (3-axis grinding with tool of diameter 100mm) | mm | 3,300 x 1,600 * | 3,800 x 2,000 | 4,500 x 2,500 |
| Z axis stroke | mm | 650 | 650 | 650 |
| C axis stroke (optional) | | ∞ | ∞ | 00 |
| T axis stroke (optional) | | +/-90° | +/-90° | +/-90° |
| Max axis speed (X, Y, Z) | m/min | 60, 70, 18 | 60, 70, 18 | 60, 70, 18 |
| Work table height ("high table" version) | mm | 535 (740) | 535 (740) | 535 (740) |
| Electrospindle power In S1 (S6) | kW | 15 (18) | 15 (18) | 15 (18) |
| Max electrospindle rotation | rpm | 12000 | 12000 | 12000 |
| Tool coupling | | ISO 40 | ISO 40 | ISO 40 |
| Tool magazine for | up to | 53 | 61 | 69 |
| Power required | kW / HP | 22,5 / 30 | 22,5 / 30 | 22,5 / 30 |

^{*} Depending on the configuration of the tool magazine.

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=100d-B(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 MITH NIERMAC

NATURE CALLS, INTERMAC ANSWERS

Generelli SA, a company from Ticino with headquarters in Rivera, 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"



