VERT MAX ONE

CNC VERTICAL MACHINING



INTERMAC

ACCESSIBLE TO EVERYONE, HIGH-PERFORMING LIKE NO OTHER



Vertmax ONE is the compact vertical machining centre based on the revolutionary concept of machining the piece vertically: designed and developed to meet the needs of small glassworks that want to see their production evolve technologically with limited investment, but also large-scale factories producing articles in a quicker and more flexible way, with lower costs.



VERTMAX ONE

- AUTOMATIC TOOLING WITH ZERO SET-UP TIMES
- EXCELLENT PRODUCTIVITY AND MACHINING SPEED, THANKS TO THE POSSIBILITY TO LOAD AND UNLOAD WHILE THE MACHINE IS RUNNING
- ACCESSIBLE AND SUITABLE FOR EVERY TYPE OF CUSTOMER
- EXTREMELY EASY TO USE, EVEN FOR LESS EXPERIENCED OPERATORS, THANKS TO THE IC SOFTWARE
- OUTSTANDING WORK ERGONOMICS, THANKS TO THE VERTICAL POSITION OF THE GLASS

IDEAL FOR EVERY REQUIREMENT

Vertmax One is the vertical machining centre given over to the production of doors, shower boxes, balustrades and interior/exterior furnishings; it can machine sheets measuring up to 3000x1500 mm.



DOOR - SHOWER BOX



BALUSTRADES





LARGE WINDOWS IN DIFFERENT SHAPES





DESIGN AND ARCHITECTURAL ELEMENTS



THE INTERMAC ONE RANGE IS UNIQUE IN EVERY SENSE:

- UNIQUE AND UNBEATABLE,
- COMPACT AND HIGH-PERFORMING,
- ACCESSIBLE AND USER-FRIENDLY

THANKS TO VERTMAX ONE, IT'S NOW POSSIBLE TO PRODUCE MORE PIECES IN A QUICKER AND MORE FLEXIBLE WAY, AND WITH LOWER COSTS.

PERFECT FOR EVERY TYPE OF PROCESS



Vertmax ONE is the perfect solution for carrying out any machining operation with the greatest ease:

- Glossy and rough grinding
- Boring
- Milling and grinding of both notches and openings in the inner part of the glass.





QUICK BORING IN LESS THAN 30”
thanks to the twin power with HSD electrospindles
fitted with a closed circuit cooling system.



OPTIMUM MACHINING QUALITY

THE GLASS PILOT SYSTEM

Pilot System is the innovative Intermac technology that guarantees unbeatable polishing results during vertical machining, minimising vibrations and maintaining perfect tool centring during operations on the edges, even when far away from the suction cup hold area.







The pilot system guarantees incredible performance, with the possibility to machine internal radii of 900mm.

The new system designed for Vertmax One has a compact structure and design, allowing unbeatable machining even on internal radii. It contains a new multi-nozzle tool cooling unit that ensures outstanding quality and machining speed. The Pilot System technology includes the C axis that's essential for following the profiles of all the machinable geometries, thereby guaranteeing the best glass grip and stability at all times.

AUTOMATIC TOOLING WITH ZERO SET-UP TIMES

Thanks to the ZERO SET-UP TIME technology, Vertmax One can carry out all the machining operations needed to create a product without the operator having to worry about the preparation of the work table.

**With its idle or automatic roller bed (optional),
Vertmax One makes the glass loading task even more simple and dynamic.**





Equipped with idle rollers (that can be motorised if required) on the machine infeed.



Motorised outfeed rollers for automatically conveying and unloading the glass.





The automatic setting of the work table and the quick tooling make Vertmax the ideal solution, always ready for both large batches and batch-one production.

The optional support system for lightweight glass is activated automatically to help ensure an optimum grip on the glass.

HIGH TECHNOLOGY AS STANDARD



Zero limit switch
The high-precision zero limit switch guarantees the creation of products of the highest rigour, respecting the strictest tolerance limits. Accurate reading, even with the uneven edge from cutting.



Rear rollers
The rear rollers ensure that the glass support surface is perfectly aligned with the suction cups, ensuring unprecedented edge machining precision even on tall sheets of glass.

Glass support rollers and counter-rollers to dampen the vibrations during milling operations.





Dressers and automatic pre-setters for top quality boring at all times.



Grinding wheel pre-setter.



Diamond wheel dressing.

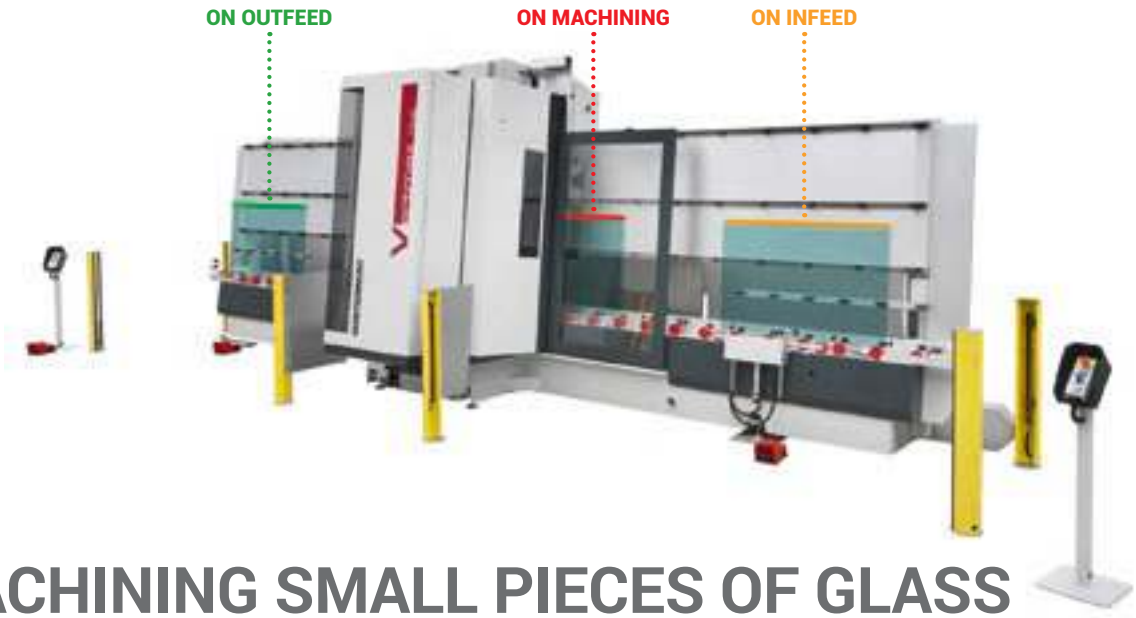


Finishing wheel dressing.

The optional dressing and pre-set devices are fully automatic, and integrated in the working area. They eliminate the manual operations, ensuring enhanced productivity and precision.

MAXIMUM PRODUCTIVITY

Thanks to pendular machining, the pieces can be loaded and unloaded while the machine is operating, thus increasing productivity.
The maximum panel size permitted for tandem machining is 1500 mm.



MACHINING SMALL PIECES OF GLASS





Optional dedicated technology for machining small pieces of glass and sheets of up to 300x200 mm and 300x150 mm.
Grinding wheels of 80 mm are used, without the aid of the Pilot System.



The patented dynamic repositioning system for the suction cup carriages is designed to process a piece without ever leaving it halfway between one suction cup carriage position and the next.

The independent carriage system guarantees unparalleled machining quality.



The dynamic repositioning of the suction cups allows for:

- **increased final piece productivity**
- **increased final machining precision**
- **Possibility to process unstable glass that couldn't be worked on traditional vertical machines.**



The process is entirely managed via the intelligence of the IC software, giving Vertmax ONE an exceptional advantage when it comes to simplicity.

PRODUCTIVITY



Vertmax One has two independent carriages with two suction cups for each one.

This fully automatic technology optimises the grip on the glass in relation to its size, geometries and machining without taking up extra time, and also makes the machine unique in terms of both productivity and flexibility, so it can process every type of glass in batch one.
Thanks to the repositioning of the carriages, any type of machining operation can be carried out without having to ever unload the glass from the machine and then reload it. The process is entirely managed via the intelligence of the IC software, giving Vertmax ONE an exceptional advantage when it comes to simplicity.



UP TO 20 TOOLS READY TO USE ON THE MACHINE



Front magazine

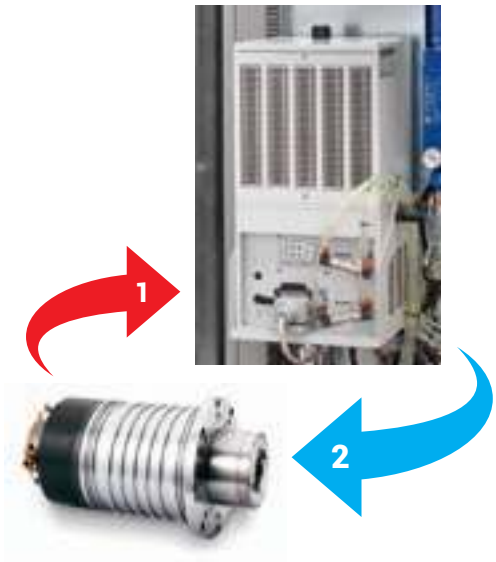


Rear magazine

Magazine with a maximum tooling capacity of up to 20 tools, equally divided between the front head (10 tools) and the rear one (10 tools).
Both magazines are located outside the machining area, for optimum protection and excellent reliability.

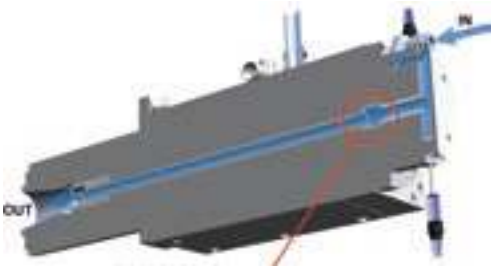
UNPARALLELED QUALITY AND RELIABILITY

Vertmax ONE is fitted with spindles made by HSD - a world leader in its sector. They guarantee optimum power, compact dimensions, extremely high finishing standards and maximum reliability.
The two spindles (6.5 kW each), fitted with ceramic bearings, are positioned outside the machining area to guarantee optimum protection and simple maintenance.



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.



EASY ACCESS AND MAINTENANCE

The maintenance area is safe and protected, but with easy access thanks to the opening of the front door and access to the rear sliding door.







Rear control panel with easy access for all maintenance tasks.



The electrospindles can leave the machining area, to facilitate maintenance and/or repair operations.

Maximum safety and ease in set-up and control operations, thanks to the hand-held terminal.

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 and/or accidents.



Complete access and easy maintenance.

- Protective doors to ensure optimum machining safety.
- Photocells at the sides of the machine, and anti-intrusion limit switch.
- Hand-held terminal for moving the machine safely.
- Semaphore showing the operating status.

With vertical working centres, the operator is protected by:

- Ergonomic front guards.
- No access to moving machine parts.
- Reduced noise levels, fully complying with the machinery directive.







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

IC: THE TOTAL GLASS EXPERIENCE IN A SINGLE SOFTWARE PACKAGE

IC

IC WAS CREATED FROM THE EXPERIENCE AND RELIABILITY OF ICAM WHICH, WITH OVER 7500 PACKAGES INSTALLED IN 180 COUNTRIES, IS THE MOST WIDELY USED CAD/CAM SOFTWARE IN THE WORLD WHEN IT COMES TO GLASS APPLICATIONS.

- **RENEWED GRAPHIC INTERFACE THAT'S USER-FRIENDLY AND EASY TO PICK UP THANKS TO SELF-LEARNING CONCEPTS, BUT WITHOUT COMPROMISES IN TERMS OF FUNCTIONS AND PROGRAMMING FLEXIBILITY**
- **ROBUST, RELIABLE PLATFORM**
- **ENHANCED CALCULATION POWER THANKS TO THE USE OF THE LATEST DEVELOPMENT TECHNOLOGIES**

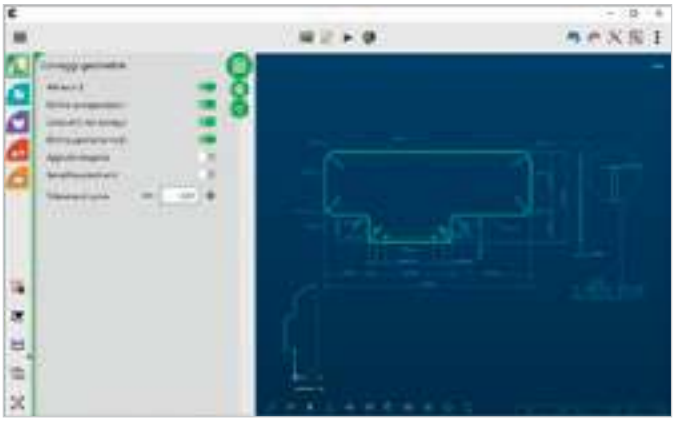
- **MODERN INTERFACE:** similar to the most modern apps, it can be used with a touch screen.
- **EXTREMELY USER-FRIENDLY:** assisted design in 5 steps.
  From the drawing to the machine in just a few seconds.
- **TOTAL CONTROL OF THE DESIGN PROCESS, FROM THE DRAWING TO THE FINISHED PIECE.**
- **SOLUTIONS FOR LARGE-SCALE OR ONE-BATCH PRODUCTION:**
  the possibility to manage libraries of models (even parametric).
- **SUPPORT SERVICE ALONGSIDE THE CUSTOMER:**
  IC is equipped with "AIC Log" technology: in the event of problems and/or a need for support, Intermac Service can see the operations that have been carried out, and can quickly intervene.



IC: SEE, DESIGN, CREATE

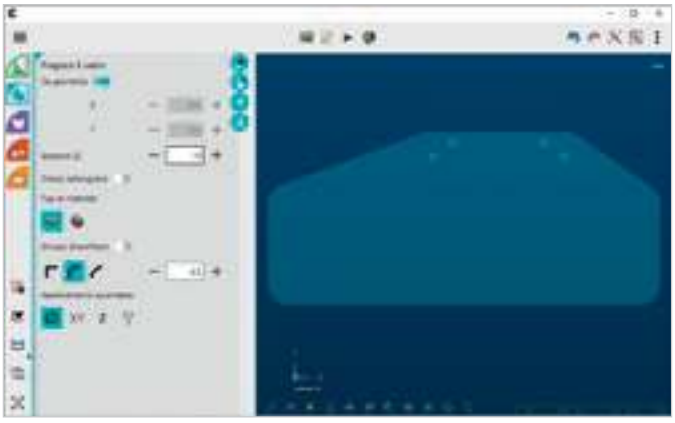
The software suggests the correct sequence of the 5 steps for the design phases.

1. SIMPLIFY
2. IDENTIFY
3. APPLY
4. PROCESS
5. EXECUTE



SIMPLIFY

In this step, an imported drawing can be simplified, the geometries needed for the machining operation can be identified, and any possible imperfections can be corrected.



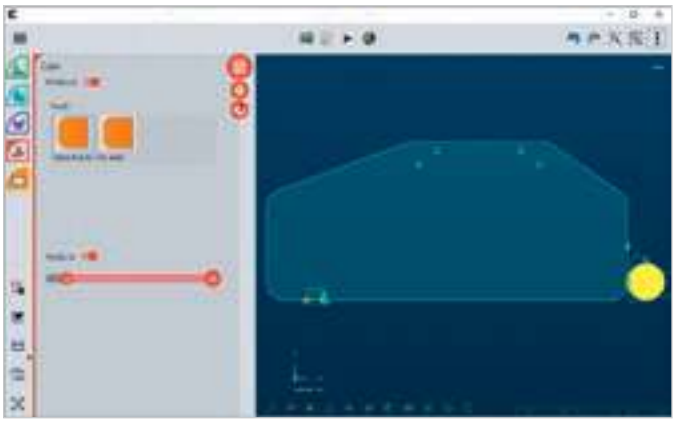
IDENTIFY

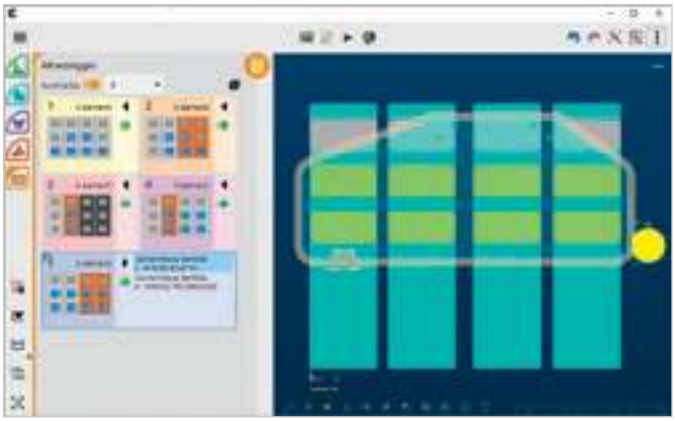
The glass to be worked in the machine is easily identified, starting from the drawing previously processed or specifying its dimensions.

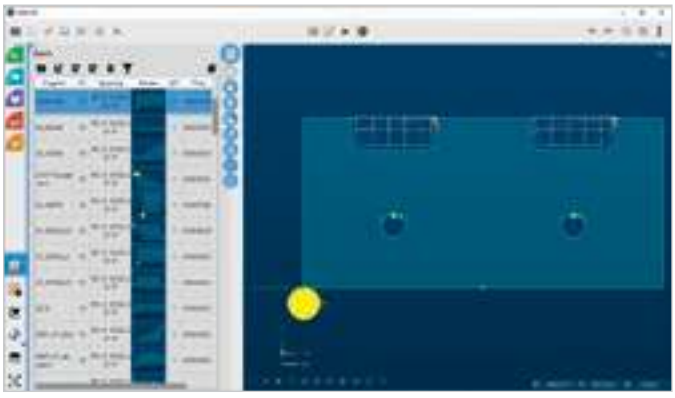


APPLY

With a simple drag&drop, additional elements such as notches or hardware items can be parametrically applied to the piece. These elements can be easily added and personalised by the customer.







PROCESS

The geometries are automatically processed with a click: circles become bored holes, profiles become milling operations, glass is ground; layers can be associated with specific machining operations.

EXECUTE

The piece is prepared so it's ready to be executed in the machine. The carriage positions are calculated and the necessary suction cups are enabled. Possibility to intervene manually for collision control.

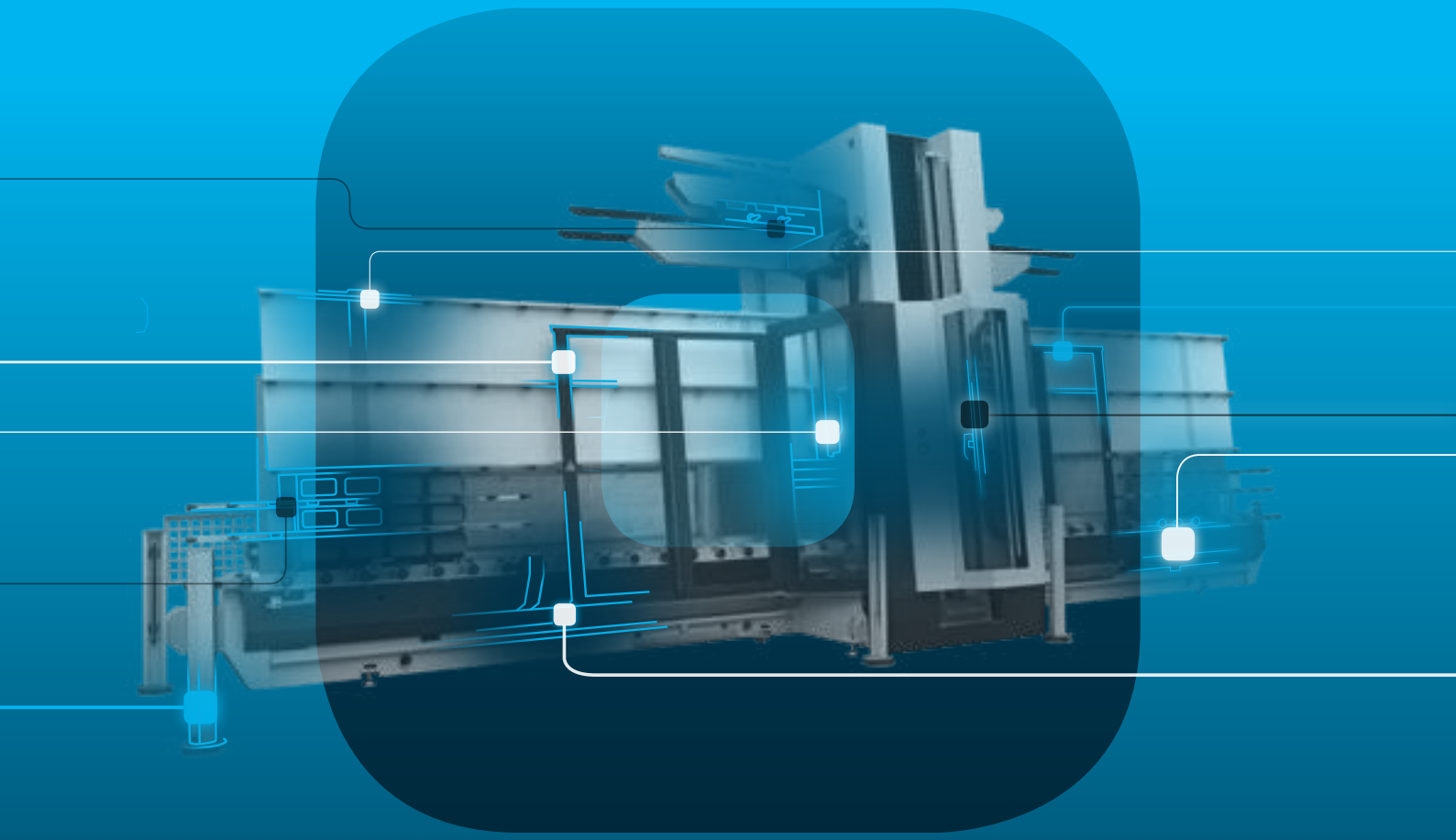
IC BATCH

Option of importing and automatically programming a list of designs (in standard DXF, DWG or IC formats) and sending them directly to the machine. Option of modifying the pieces after the automatic calculation.

IC AUTOMATICALLY SIMPLIFIES COMPLEX DRAWINGS, IDENTIFYING THE GLASS TO BE MACHINED AND ALL THE OPERATIONS REQUIRED TO PRODUCE IT.

SOPHIA

GREATER VALUE FROM MACHINES



The Intermac IoT platform which enables customers to access an extensive range of services to streamline and rationalise their work management processes.

- SERVICES
- PROACTIVITY
- ANALYSIS

INTERMAC

in collaboration with accenture

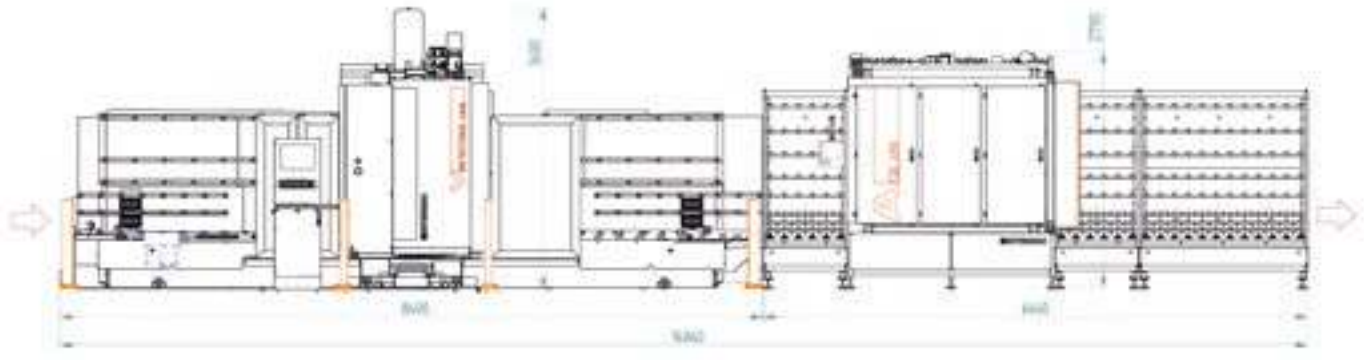
COMPLEMENTARY TECHNOLOGIES

Perfect integration with Intermac Aqua vertical washers.

Vertmax One and Aqua
are complementary, and ready for line certification.







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

A-weighted surface sound pressure level LpfA79 dB -Weighted sound power level LwA95 dB -Measurement uncertainty K: 4 dB.
The measurement was taken in compliance with: UNI EN ISO 3746 and UNI EN ISO 11202 of 2009.

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 cannot be used in a reliable manner to establish whether further precautions are needed. The factors determining the exposure level for the workforce include length of exposure, workplace characteristics, other sources of dust and noise, etc. - i.e. the number of machines and other processes nearby. In any case, the above information will enable the machine user to better evaluate the danger and risk.

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

+100 EXPERTS IN DIRECT CONTACT THROUGH REMOTE CONNECTIONS AND TELESERVICE

+50.000 ITEMS IN STOCK IN THE SPARE PARTS WAREHOUSES

80% OF SUPPORT REQUESTS SOLVED ONLINE

88% OF CASES SOLVED WITH THE FIRST ON-SITE VISIT

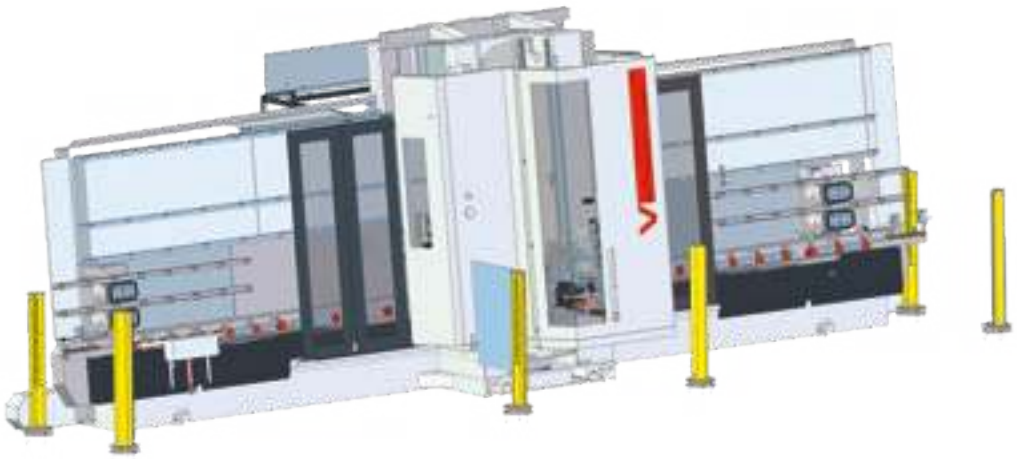
90% OF MACHINE DOWN CASES WITH RESPONSE TIME UNDER 1 HOUR

92% OF SPARE PARTS ORDERS FOR MACHINE DOWNTIME PROCESSED WITHIN 24 HOURS

+5.000 PREVENTIVE MAINTENANCE VISITS

96% OF SPARE PARTS ORDERS DELIVERED IN FULL ON TIME

TECHNICAL DATA



VERTMAX ONE

Maximum machinable sheet size	mm	2500 x 1500 3000 x 1500 optional
Minimum machinable sheet size (without the pilot system)	mm	500 x 320 R=0.5 with pilot system 500 x 300 R=0.5 without pilot system
Machinable glass thicknesses	mm	min 4 - max 15
Suction cup carriage speed	m/min	60
Y-axis speed	m/min	40
Z axis speed	m/min	30
Speed of glass feed on roller modules on infeed* (optional) and outfeed	m/min	18
Electrospindle power	kW	6.5 front head spindle 6.5 rear head spindle
Maximum spindle rotation	rpm	12000
Maximum diameter of the front head grinding wheel	mm	150 with pilot system 80 without pilot system
Maximum diameter of the rear head grinding wheel	mm	boring and countersinking only
Maximum drill diameter	mm	50
Tool coupling		ISO 40
Tool magazine	positions	10 front head 10 rear head
Maximum power requested (max)	kW	22

COMPLETE RANGE OF SOLUTIONS FOR GLASS

INTERMAC

TABLES FOR FLOAT GLASS CUTTING


Genius RS-A


Genius CT-A series


Genius CT-PLUS


Genius CT-RED series

TABLES FOR LAMINATED GLASS CUTTING


Genius LM series


Genius LM-A series

MACHINES FOR LAMINATED AND FLOAT GLASS CUTTING


Genius Comby Lines

LINES FOR LAMINATED OR FLOAT GLASS CUTTING


Genius Lines & Systems

WATERJET


Primus series

DOUBLE ENDING MACHINES AND SYSTEMS


Busetti FK series


Busetti F series


Busetti P series


Customised solutions

WORK CENTRES


Master 23


Master ONE


Master 33.3-38.3-45.3


Master 33.5-38.5-45.5- 45.5 Plus

SPECIAL WORK CENTRES AND AUTOMATIC CELLS


Master 63-65


Master 95


Master 185

SPECIAL WORK CENTRES AND AUTOMATIC CELLS


Master with belts


Master working cell

WORK CENTRES ENGRAVING


Master 34

VERTICAL MACHINES


Vertmax ONE


Vertmax series


V-Loader

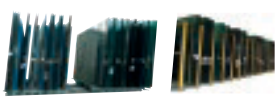
VERTICAL WASHING MACHINES


Aqua series

MOVETRO

STORAGE & HANDLING SYSTEMS

STATIC STORAGE


MOVETRO SERIES
Classifiers

CLASSIC DYNAMIC STORAGE


MOVETRO SERIES
Loading machines

INNOVATIVE DYNAMIC STORAGE FOR MASS PRODUCTION


MOVETRO SERIES
Shuttle storage systems

INNOVATIVE DYNAMIC STORAGE FOR DYNAMIC PRODUCTION


MOVETRO SERIES
Overhead crane - Telescopic loading machines - Arpa

TOOLS FOR GLASS


Diamut tools

MADE WITH INTERMAC

VETROTEC. TECHNOLOGICAL INTEGRATION: THE WINNING CHOICE FOR SUCCESS ON THE MARKET

Founded in Pesaro over 40 years ago, Vetrotec is a large company that has accrued decades worth of skill and experience and has built a vast portfolio of products, exploring every shape and level of complexity, from glass doors, shelves and sinks to furnishings such as tables, mirrors and desks designed for major international designer brands.
"I believe Intermac was the first company to invent the ultimate machining centre. For us, Master was the hub of the real innovation in glass machining, revolutionising the way we work" says Davide Broccoli, Key Account Manager..
"We now have six Master machining centres, a Vertmax vertical machining centre and a waterjet machining centre. What's more, we can carry out flat edge machining operations with our Busetti machining centres and double edgers, in particular with the innovative Radius Revolution double-edging grinding system that produces an impeccable finish without resorting to manual work or other machines."
Together with Vetrotec, Intermac has created integrated lines for these technologies: a specific example is the integration of Movetro systems for handling ceramic sheets with the Genius Intermac cutting table, which reduces the time it takes to cut the ceramic sheets and the storage space they require.
"The best way to ensure success on the market is to aim for integrated, efficient lines, which is why Intermac's decision to work toward integration isn't just a winning choice - it's something more.
"The quality of Intermac technology and the right dose of skill and know-how are the key to achieving a winning finished product", Broccoli continued.
Collaboration with Intermac, which has been ongoing for over thirty years, is based on continuously selecting a supplier that stands out for extensive experience, optimised and integrated machines and patented high-tech solutions. In addition, "I believe having a software house that operates internally offers enormous added value because it provides a complete perspective of the advantages and opportunities that the software offers to fully meet the customer's needs", stated Broccoli.
"Intermac is, no doubt, one of the most valid partners we have every had in terms of dedication and prompt service, as well as for the quality of the customer-supplier relationship: deciding to buy a machine is not a one-off event, for us it amounts to a long-term marriage and, in my estimation, Intermac fully meets all the needs that arise over the period after the purchase", Broccoli stated in closing.

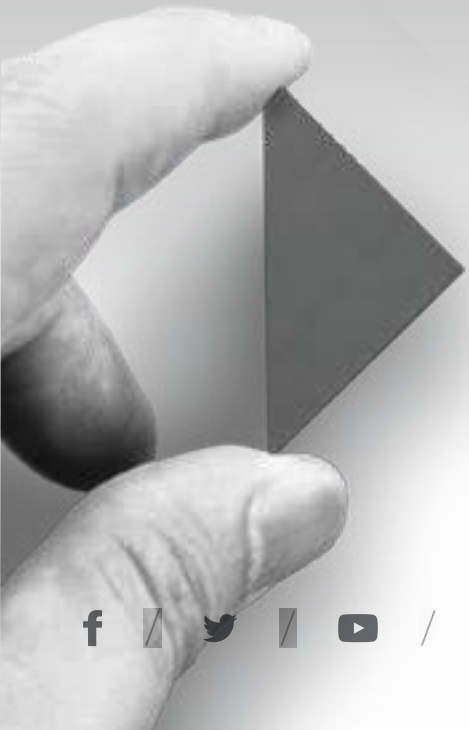


VETROTEC.COM

LIVE THE EXPE RIENCE

BIESSEGROUP.COM





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

LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD

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