



Biesse  
Machinery

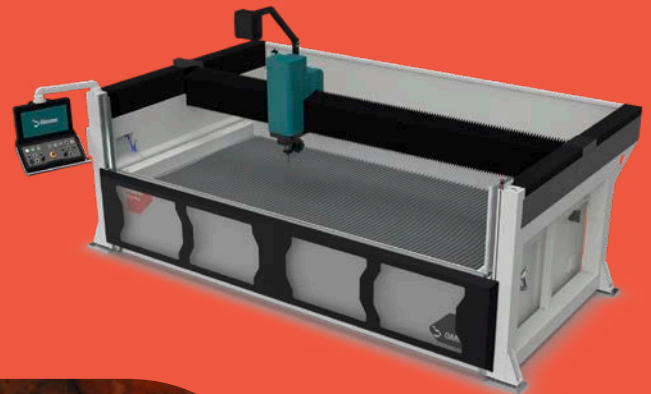
Stone



GMM

# Master Cut Pro J C S

Cutting | Waterjet



Biesse



**06** Overview

**08** Applications

**10** Machining  
Operations

**12** Machine  
Architecture

**14** Operating  
Units

**16** Worktable

**18** Main  
Features

**20** Ergonomics  
& Safety

**22** Interface  
& Software

**26** Configurations

**26** Technical  
Specifications

**27** Overall  
dimensions

**28** Biesse  
Customer Care

**30** About Us



# Master

Machines

# Genius

Extended Machines

Identify in a few words  
the most suitable machine  
for your needs from  
our product portfolio.

Machining type

**Cut**

Cutting

**Edge**

Edging

**Fin**

Finishing

**Multi**

Multi-machining

Segment

**Pro**

Distinctiveness  
and performance

**Up**

Agility  
and expertise

**Go**

Simplicity  
and compactness

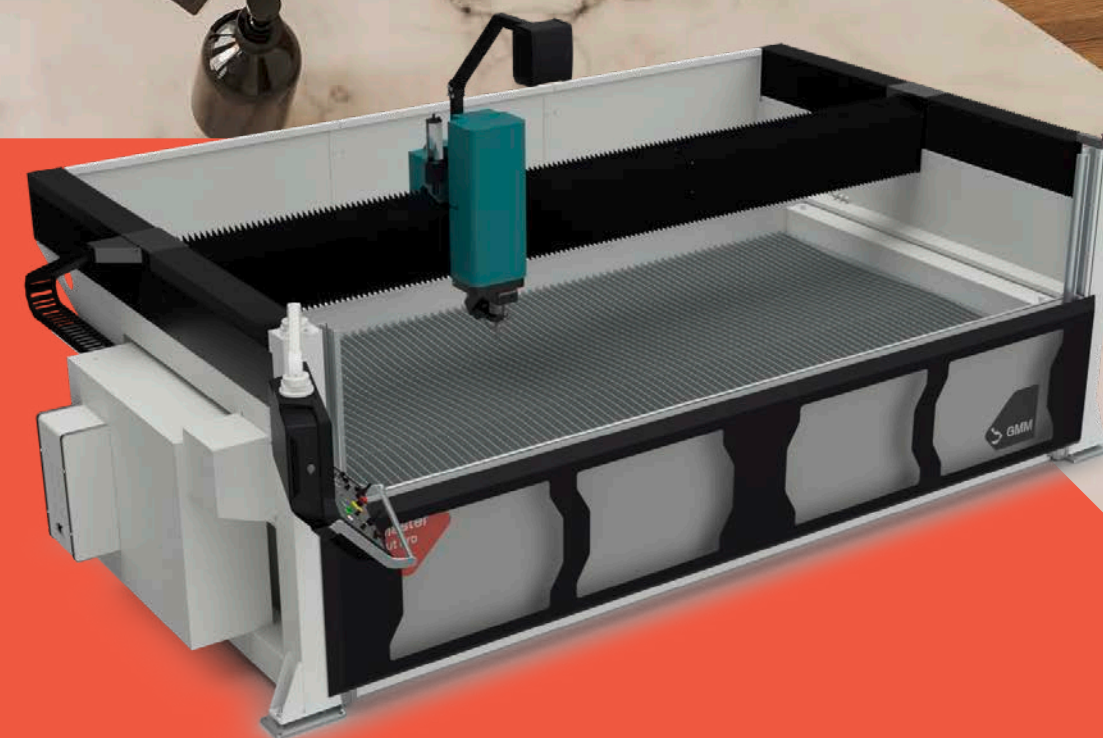




# Find your perfect fit

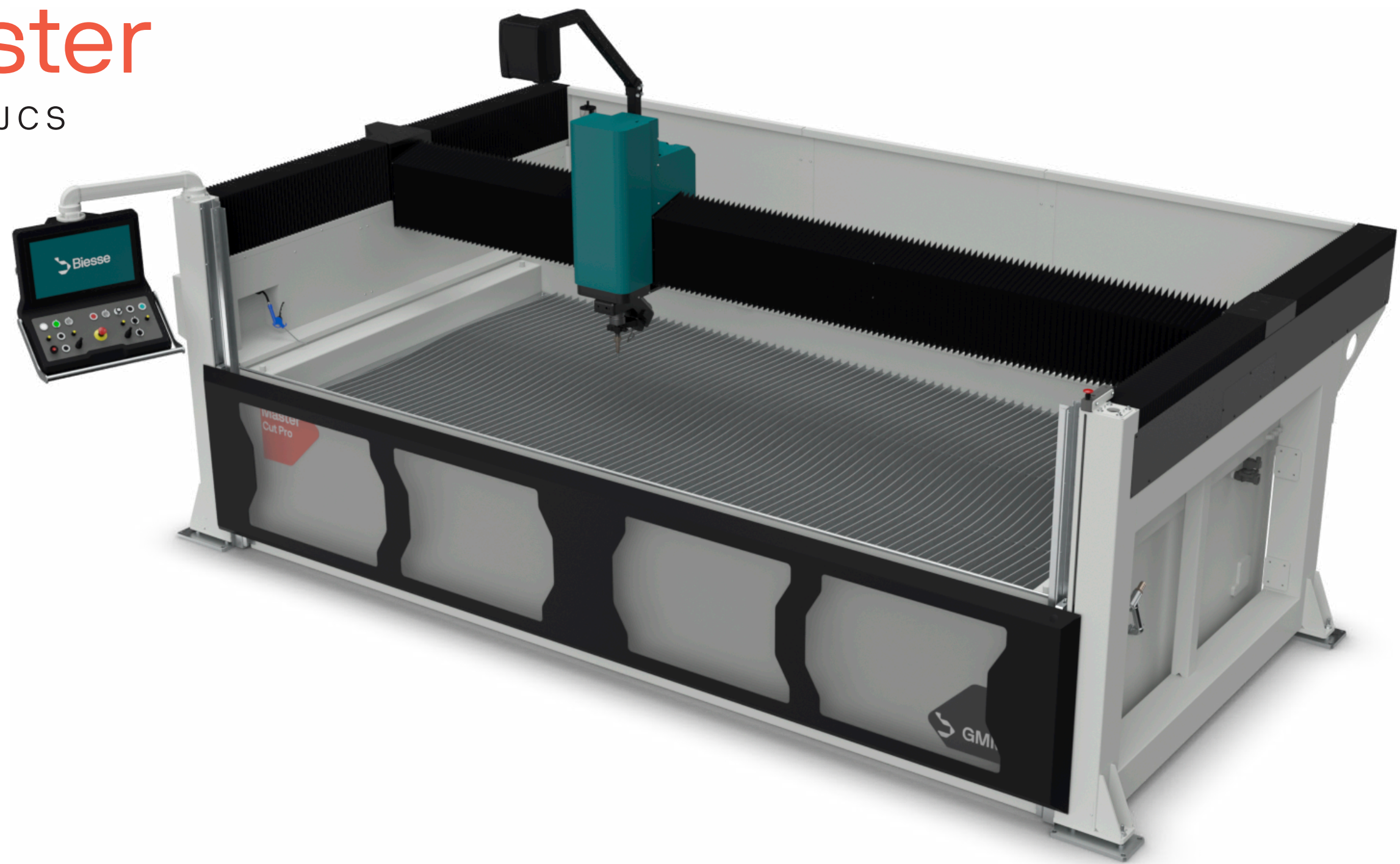
## Waterjet machine power for unlimited creativity with simplified workflows.

The Master Cut Pro J C sets a new benchmark for power, precision and ease of use in waterjet cutting across all stone and ceramic materials. Its fully enclosed cabin ensures a cleaner and safer workspace, while the intuitive user interface keeps the slab perfectly under control at every stage. Driven by a high-efficiency electric pump and equipped with a tilting head featuring endless rotation, it delivers powerful yet remarkably quiet performance, unlocking unmatched freedom in even the most complex cuts. Maximum control and exceptional results, every time.





# Master Cut Pro JCS



## Human Machine Interface

Control at your fingertips: smart, intuitive and ready to go. The 21" ergonomic multitouch HMI is integrated into the machine controls, supported by GMM software designed to be simple, innovative and intuitive, enabling quick and efficient start-up of any stone-processing job.

## 5 Axis Technology

Its endless vertical-axis rotation eliminates pauses and rewinds, ensuring seamless efficiency even in the most complex cutting tasks. The PAC 60 can perform true angle cuts up to  $\pm 60^\circ$ , enabling intricate geometries with exceptional ease and precision.

## Full perimeter safety and noise control

In a production area, where precision and safety are paramount, these barriers have been introduced: 360° CE safety fences. These fences were not just any ordinary barriers; they were designed to prevent splashes fallout and reduce noise around the cutting area.

## Clear Previews for Error-Free Cutting

Clear previews of the cuts to be made, minimizing chances of errors. All software solutions provide a clear preview of the machining process and allow operations to be stopped and resumed from the exact point where they were left off, ensuring maximum flexibility and efficiency.

## Electric Servo Pump

Lower energy use and reduced environmental impact: the Quantum NXT™ Electric Servo Pump (4500 bar, 3.8 l/min) delivers the highest efficiency in waterjet cutting. Its electric servo technology ensures powerful performance with minimal wear and optimized operating costs, making it a smart, sustainable solution for modern fabrication.

## Slab Thickness Reader

Automatic precision for perfect cuts: the Slab Thickness Reader measures slab thickness and automatically compensates for variations. This ensures consistent cutting accuracy, optimized material use, and precise results, even for complex operations like inclined cuts.

## Camera

The right point of view. The Camera, integrated on top of the machine head, moves with it to capture the optimal perspective of each slab. This ensures precise edge detection, accurate measurements, and efficient, error-free machining.

## Materials

**Ns** Natural Stone

**Es** Engineered Stone

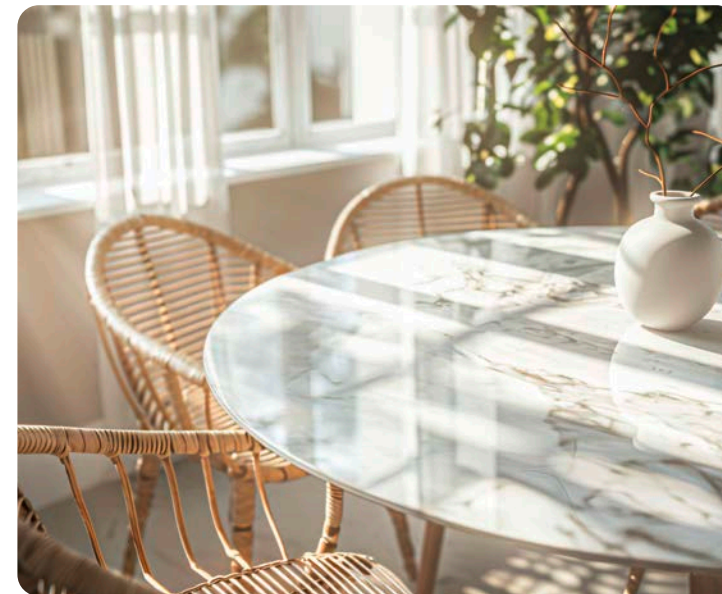
**Ss** Sintered Stone

# Stone

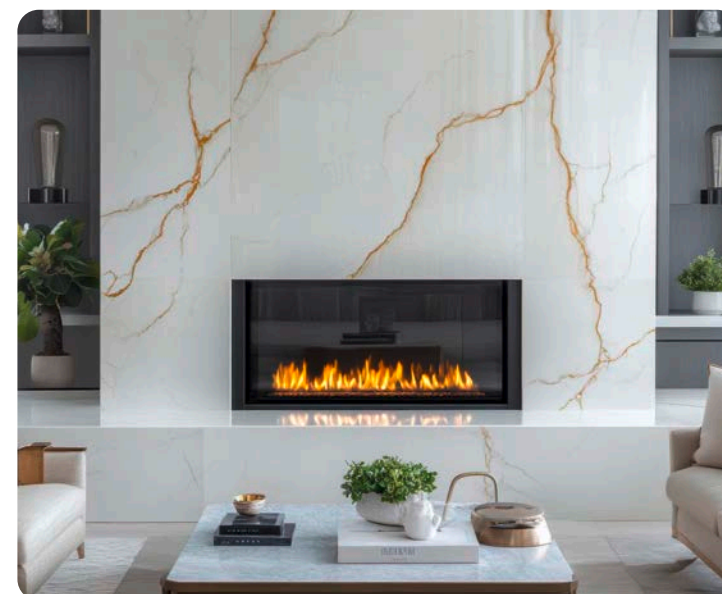
We design and manufacture stone-processing machines for the furniture, building and construction sectors, delivering the ideal solution for specific production requirements.



Kitchen  
countertop



Table



Generic  
interior design





### Straight Cut

Delivers clean, accurate linear cuts on slabs, ideal for countertops, tiles, steps and general dimensioning. The waterjet process ensures precision without thermal stress or micro-cracks, making it suitable for both natural and synthetic materials.



### Inclined Cut

Allows precise angled cuts using the tilting head up to  $\pm 60^\circ$ . Perfect for shaped edges and custom profiles, maintaining high accuracy and surface uniformity even on oblique geometries.



### 3D Objects

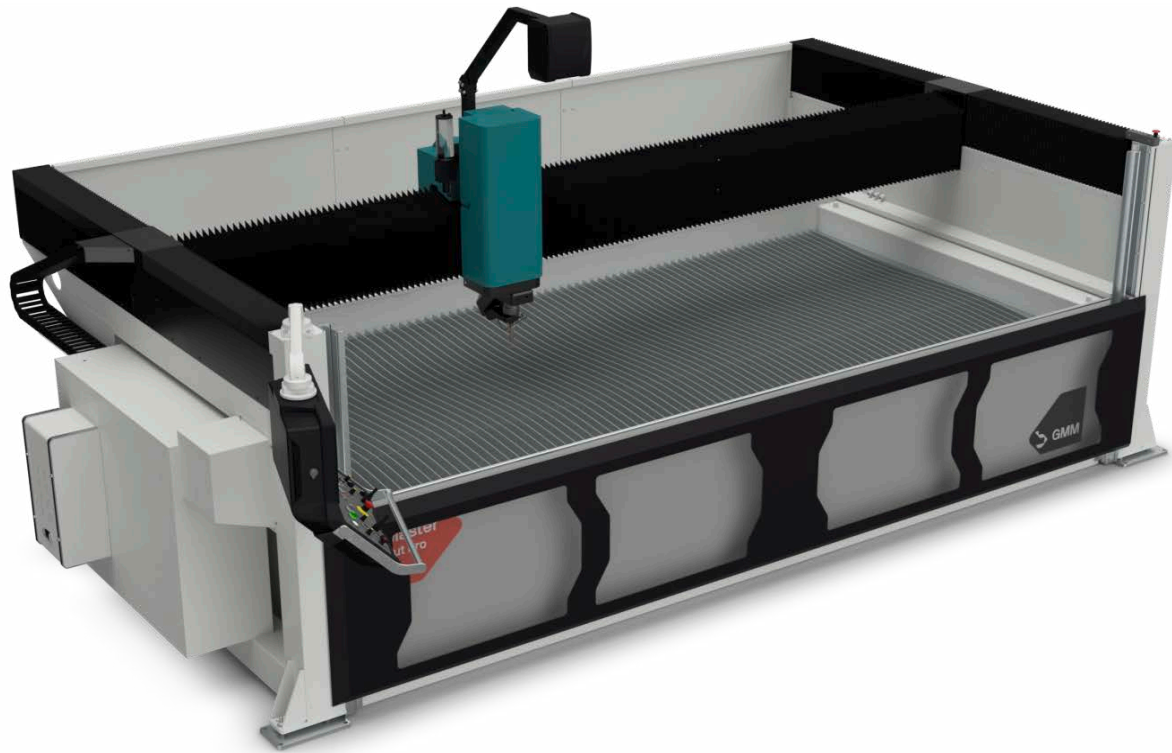
Enables the creation of complex three-dimensional parts, sculpted elements and curved profiles. This multi-axis capability supports advanced architectural details, artistic pieces and customized shapes that go beyond simple 2D cutting.



### Submerged Cut

Executes cutting operations fully underwater to reduce noise, splashing and abrasive dispersion. This method improves surface quality, keeps the environment cleaner and provides extra protection when working with delicate or composite materials.





## Monoblock Structure

The Master Cut Pro J C features a robust monoblock structure with an independent tank, ensuring exceptional stability and precision during cutting. Its fully enclosed design, combined with a 360° CE-certified safety barrier, provides maximum operator protection while minimizing splashes and noise.



## Quantum NXT™ Electric Servo Pump

The Master Cut Pro J C is equipped with the Quantum NXT™ electric servo pump, delivering up to 4500 bar (66,000 PSI) and 3.9 l/min flow. This innovative pump ensures extreme cutting precision by eliminating pressure spikes and allowing fine control of water pressure and flow. Quiet (max 70 dBA), low-maintenance, and environmentally efficient, it includes integrated monitoring software, a chiller, and pipe/glycol kit for reliable, long-lasting operation.

## Water Treatment System Reverse Osmosis

The Master Cut Pro J C features a dedicated reverse osmosis water treatment system, ensuring consistent water quality for optimal waterjet performance. By removing impurities and stabilizing water characteristics, it protects the high-pressure circuit, reduces wear on components, and guarantees precise, reliable cutting over time. This system is essential for maintaining warranty compliance and long-term machine efficiency.



## Feeding Abrasive Hopper

The Master Cut Pro J C features a dual-component abrasive hopper, including a 500 kg holding tank and a pressurized delivery system. This setup allows the operator to refill the abrasive supply without stopping the machine, ensuring continuous cutting operations and minimizing downtime.



## 5 Axis Cutting Head

The Master Cut Pro J C features a PAC 60™ 5-axis waterjet head with endless rotation on the vertical axis, allowing continuous, interruption-free cutting. Capable of true angle cuts up to  $\pm 60^\circ$ , it ensures precise execution of complex geometries and intricate designs. Patented Direct Drive DC servo motors provide  $\pm 0.1^\circ$  positioning accuracy with high acceleration, delivering unmatched speed, precision, and versatility. The head handles cutting thicknesses from 3 mm to 200 mm, perfect for creating sharp internal corners and high-precision features in natural and engineered stone.



## Work Table

The Master Cut Pro J C comes with a substantial work table measuring 4000 x 2130 mm, designed to accommodate large slabs with ease. The table supports a load up to 500 kg/m<sup>2</sup>, with a total load capacity of 5000 kg, ensuring stable and safe positioning during waterjet cutting. A larger table version is also available for even greater material handling capacity. The work surface features durable slats that facilitate smooth movement and precise positioning of slabs during cutting operations, enhancing both workflow efficiency and cutting accuracy.



# Abrasive Dispenser

The Master Cut Pro J C features an automatic abrasive dosing system that delivers precise amounts of abrasive material during cutting. This accuracy optimizes abrasive use, minimizes waste, and extends the life of the supply. By improving efficiency and reducing material consumption, it lowers hourly cutting costs and enhances the overall sustainability and cost-effectiveness of operations.



# Slab Thickness Reader

The slab thickness reader automatically measures material thickness, compensating for any variations during processing. This ensures consistent cutting accuracy, optimized material use, and precise machining, essential for operations like inclined cuts. The compensation is fully automatic, integrated directly into the machining cycle for seamless workflow.

# Camera System

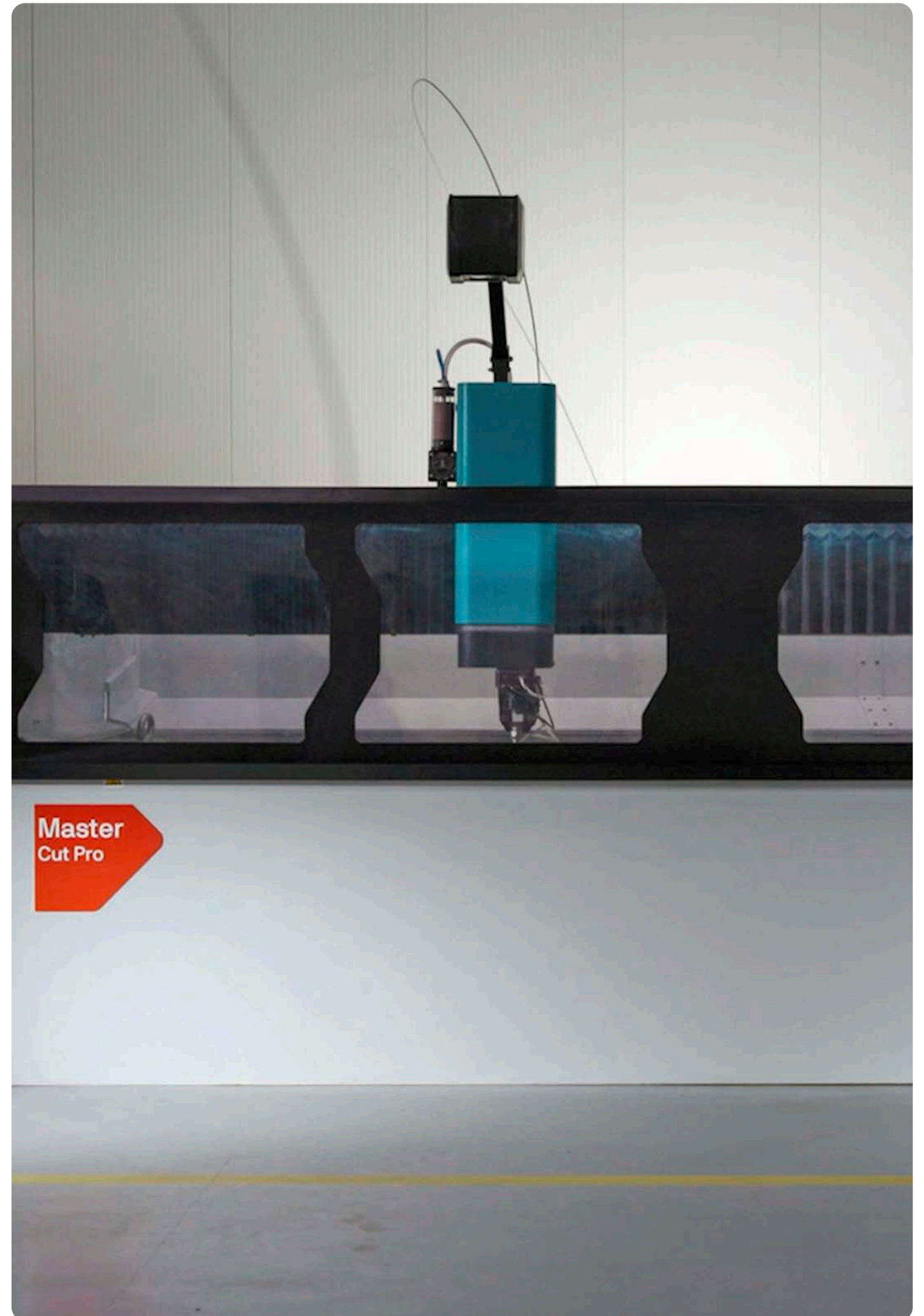
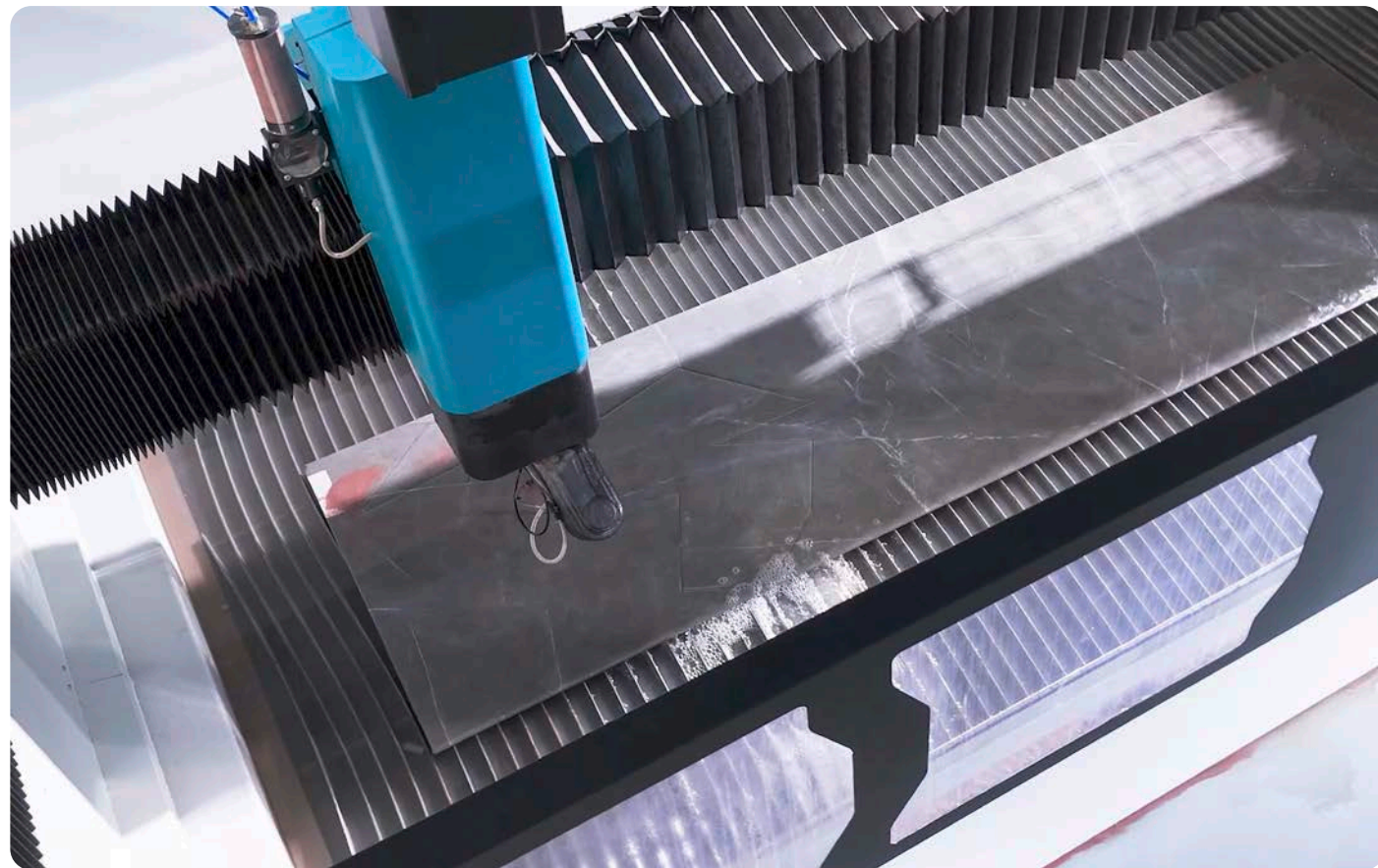
The on-board HD camera, integrated with the machine head, captures the material from the optimal perspective, delivering pixel-to-millimeter accuracy. Dynamic alignment ensures flawless edge detection, minimal shadow interference, and consistent high-resolution imaging. This crystal-clear vision enables precise piece positioning, real-time adjustments, and error-free machining, enhancing efficiency and reducing material waste.





# Full Perimeter Safety Barrier

The machine features a fully enclosed cutting cabin designed to enhance safety and working comfort. The CE-certified 360° enclosure contains splashes, debris and high-pressure water dispersion, keeping the cutting area controlled and clean. A pneumatic front access section opens smoothly for loading and maintenance without compromising safety. The enclosure also reduces noise levels, creating a quieter, more comfortable workspace ideal for high-precision waterjet operations.





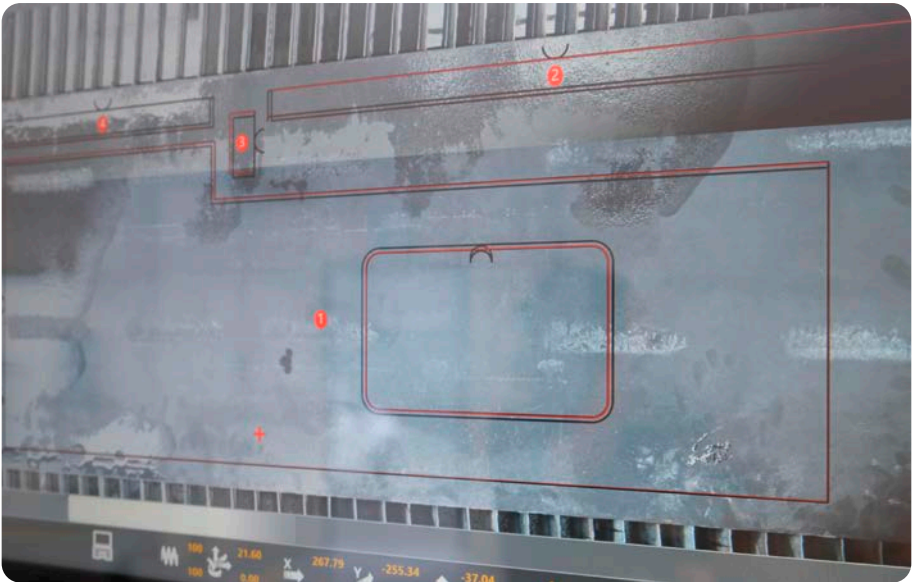
# Smart Touch, Full Control

The ergonomic 21" multitouch color display combines intuitive hardware controls with advanced software, enabling operators to start any machining process easily. Manual and semi-automatic controls, including switches and joysticks, allow precise adjustments, while the unified interface across different machining types ensures faster learning, smoother workflow, and effortless operation. Real-time feedback provides previews of processes, minimizing errors and optimizing productivity.



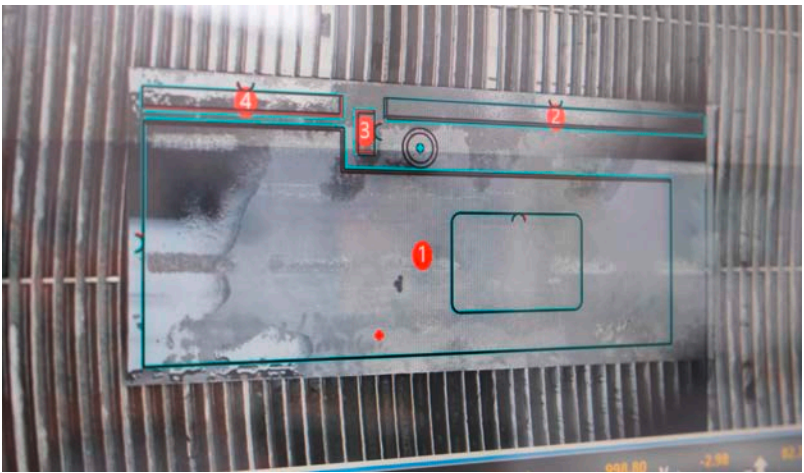
# GMM Software

Unlock your machine's full potential with GMM software. Designed for precision, efficiency, and ease of use, it provides advanced features tailored for every application. Intuitive and user-friendly, it simplifies programming, optimizes workflows, and ensures consistent high-quality results across all machining operations.



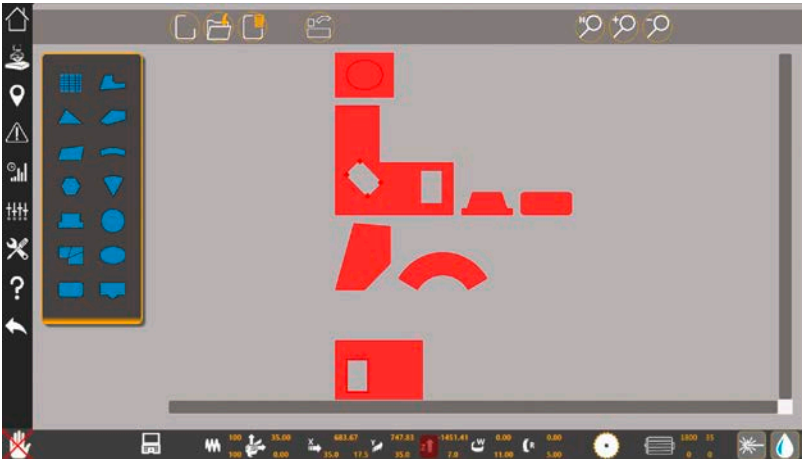
# Cuts from CAD

This module allows simultaneous use of up to three tools: disc, milling cutter, and drill bit for vertical, angled, and curved cuts, as well as milling and drilling. Slab positioning is simplified: on camera-equipped machines, a photo captures the material, while probe-equipped machines detect thickness automatically. Drawings can be loaded from saved files, parametric shapes, or nested rectangles/squares, and then moved, rotated, or precisely positioned. Features like the Magnet function combine multiple cuts efficiently, while collision alerts and automatic resolutions with the vacuum system ensure safe and smooth operation.



# Parametric Shapes

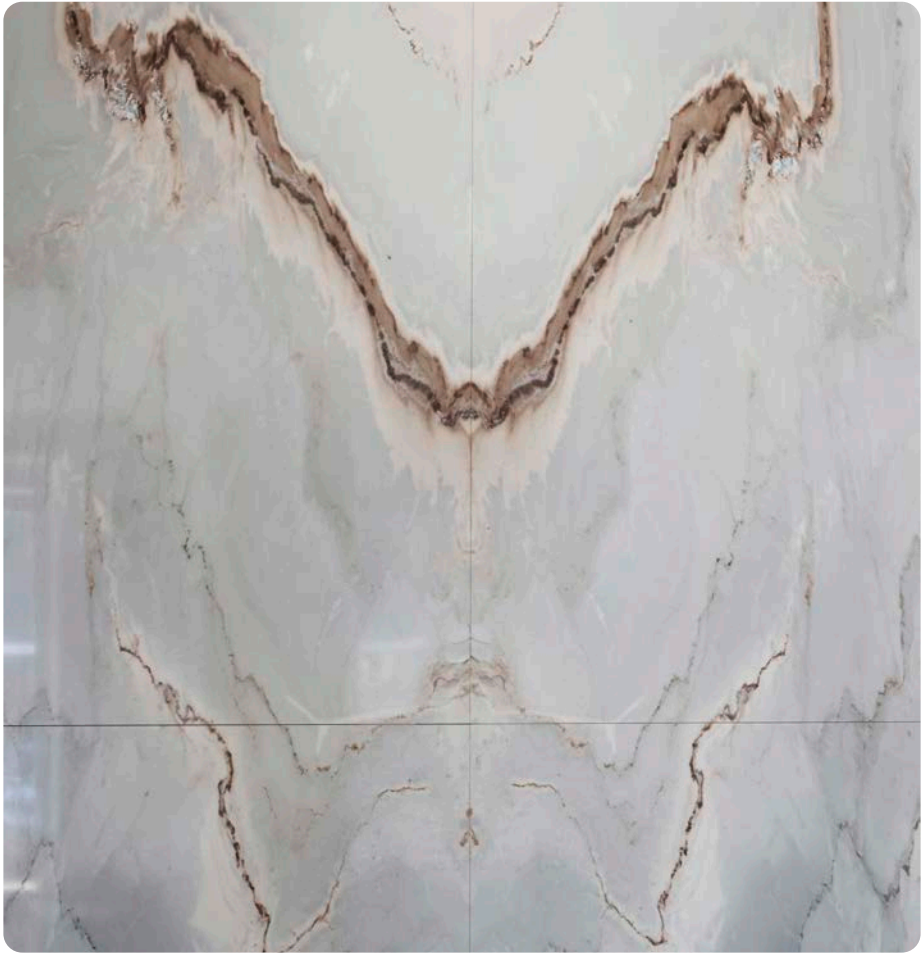
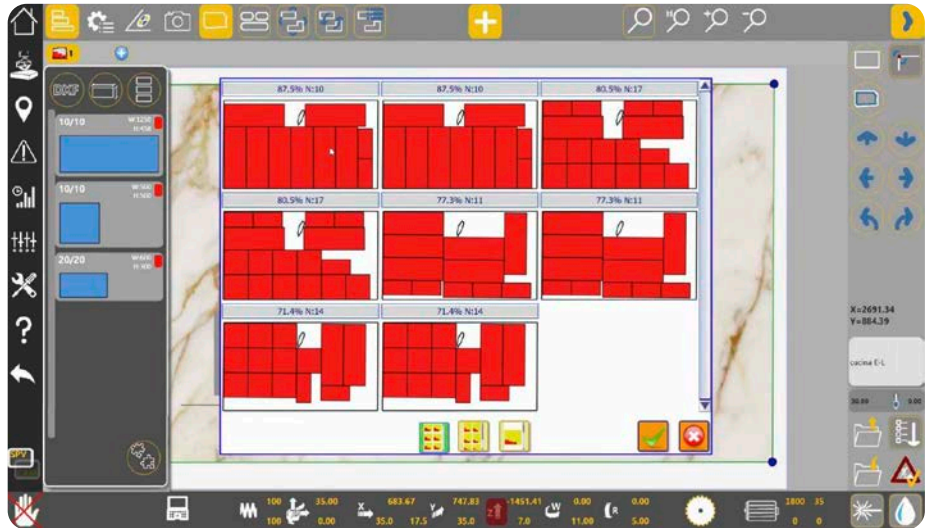
Parametric Shapes provides an easy way to create commonly used stone-working geometries. A wide range of editable templates, such as L-shaped countertops, rectangular cutouts, angled sides, grooves, drainboards, faucet holes, and reinforcement slots, can be fully customized. Dimensions, angles, bevels, offsets, and internal radii can all be adjusted to meet precise design requirements, streamlining production and ensuring accuracy.





# Automatic Nesting

The Automatic Nesting utility efficiently groups multiple parts and assigns them to different slabs. Users define part sizes, quantities, and cutting priorities, and the software automatically arranges them for optimal material use. Slabs are selected from the database or inventory, with vacuum system movements considered for CAD cuts. Nesting layouts can be saved, recalled, or sent directly to the CAD cutting page, ensuring efficient, precise, and constraint-compliant production for the CAD cuts. Even if the result may not always appear optimal to a trained eye, the positioning respects all constraints and available slab sizes. At the end, the nesting layout can be saved and recalled later, or sent directly to the CAD cutting page for execution. At the top, you'll see all the slabs and their assigned pieces, ready for cutting.



# Vein Match

Vein Match brings out the natural beauty of stone, ensuring flawless alignment of veins across book-style walls, continuous-vein countertops, and premium flooring. The software allows precise adjustments before cutting, while the high-resolution camera captures every detail. Real-time previews on the 21" touchscreen optimize material usage, streamline production, and guarantee a high-impact, seamless finish.

# Sintered Material

This feature enables precise cutting of ultra-compact and synthetic materials. Operators can set cutting parameters via the slab perimeter and define material removal to manage slab de-tensioning. An optional function automatically extends closely spaced cuts up to a defined maximum distance, optimizing workflow and ensuring consistent, high-quality results.





Configurations



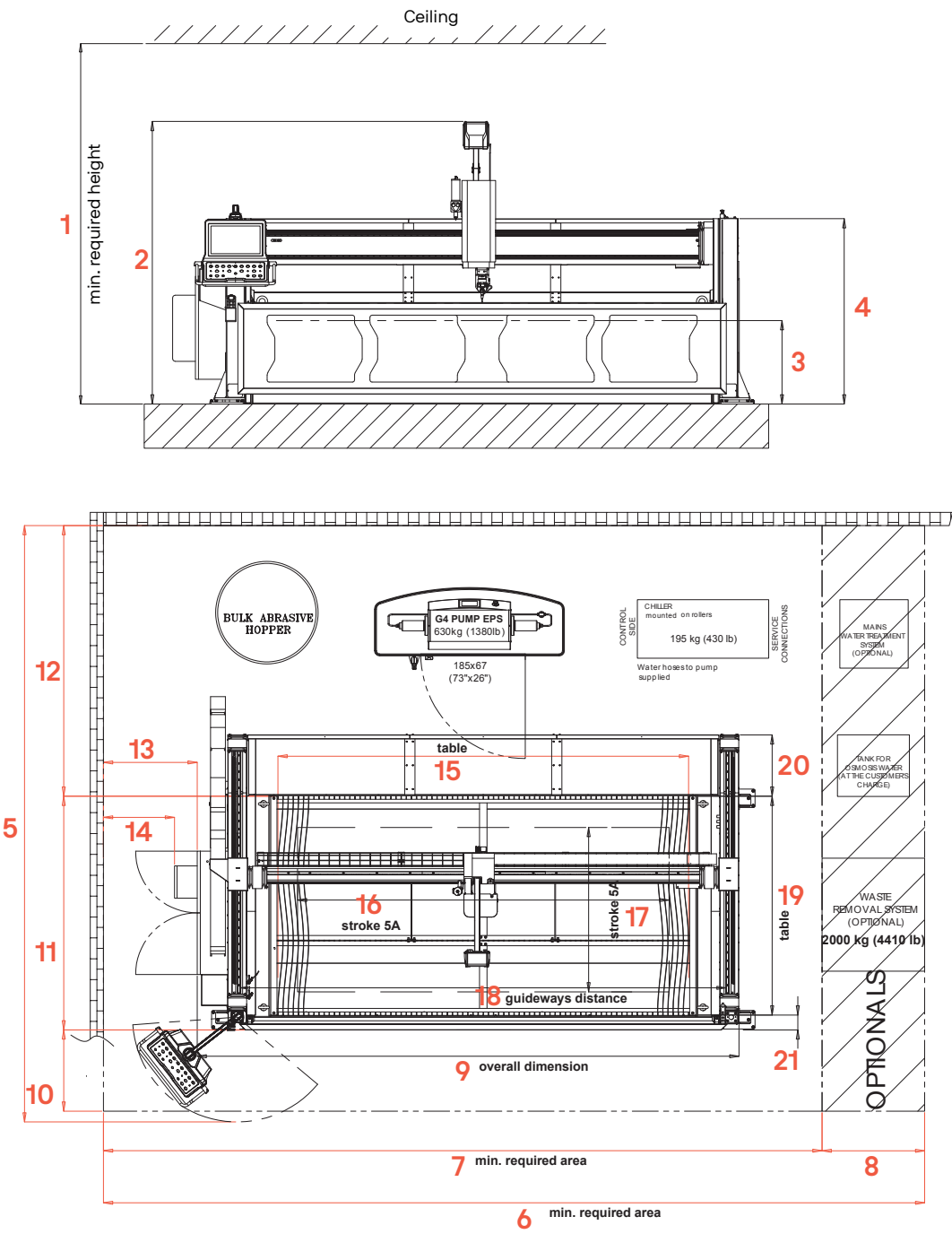
This document includes information about optional features. Scan the QR Code to access the configuration scheme and verify standard and optional equipment.

Technical Specifications

|                                                             |                     |                                                         |
|-------------------------------------------------------------|---------------------|---------------------------------------------------------|
| Interpolated Axes                                           | n°                  | 5                                                       |
| Maximum longitudinal stroke (X Axis)                        | [mm]<br>[in]        | 3975<br>[13' 0,5"]                                      |
| Maximum bridge translation (Y Axis)                         | [mm]<br>[in]        | 1965 / 2315<br>[6' 5,36"]                               |
| Maximum vertical travel of the blade (Z Axis)               | [mm]<br>[in]        | 200<br>[7,87"]                                          |
| Variable Sledge Cutting Speed (X Axis)                      | m/min<br>ft/min     | 15<br>[49']                                             |
| Variable Sledge Cutting Speed (Y Axis)                      | m/min<br>ft/min     | 15<br>[49']                                             |
| Maximum Speed Z Axis                                        | m/min<br>ft/min     | 15<br>[49']                                             |
| Head tilting                                                | °                   | ±60                                                     |
| Head rotation                                               | °                   | Endless                                                 |
| Max working area on 3 axes                                  | [mm]<br>[in]        | 3975 x 1965/2315<br>[13' 0,5"] x [6' 5,36"] / [7' 7,1"] |
| Max working area on 5 axes                                  | [mm]<br>[in]        | 3605 x 1600/1950<br>[11' 9,9"] x [5' 3"] / [6' 4,77"]   |
| Table dimension                                             | [mm]<br>[in]        | 4000 x 2130<br>[13' 1,48"] x [6' 11,86"]                |
| Extended table dimension                                    | [mm]<br>[in]        | 4000 x 2480<br>[13' 1,48"] x [8' 1,64"]                 |
| Slats dimension                                             | [mm]<br>[in]        | 100 x 3<br>[3,94"] x [0,12"]                            |
| Table height                                                | [mm]<br>[in]        | 810<br>[2' 7,9"]                                        |
| Net weight (not including external system)                  | [kg]<br>[lb]        | 5000 / 5300<br>11020 / 11680                            |
| Max tank volume water                                       | [l]<br>[gal]        | 7800 / 9000<br>2060 / 2380                              |
| Max table load                                              | [kg/mq]<br>[lb/ft2] | 500<br>102                                              |
| Gross weight of the machine (Including water and workpiece) | [kg]<br>[lb]        | 17000 / 19200<br>37480 / 42330                          |

The detected sound pressure levels are indicated in the table and may vary according to the operating conditions and the working environment. Operating conditions: waterjet cutting with submerged cutting active. Reference Standards: UNI EN ISO 11203:2020, UNI EN ISO 3744:2010 and UNI EN 1829-1:2010. Measurement uncertainty K = 3 dB(A). The machine operates with a sound pressure level at the workstation LpA = 89,23 dB(A) and a sound power level Lw = 110,29 dB(A). The indicated values are emission levels and do not necessarily represent safe operating levels.

Overall dimensions



|   |              |                 |    |              |                 |    |              |                 |
|---|--------------|-----------------|----|--------------|-----------------|----|--------------|-----------------|
| 1 | [mm]<br>[in] | 3500<br>138     | 8  | [mm]<br>[in] | 1000<br>39 1/4  | 15 | [mm]<br>[in] | 4000<br>157 1/2 |
| 2 | [mm]<br>[in] | 2740<br>108     | 9  | [mm]<br>[in] | 5280<br>207 3/4 | 16 | [mm]<br>[in] | 3620<br>142 1/2 |
| 3 | [mm]<br>[in] | 810<br>32       | 10 | [mm]<br>[in] | 790<br>31 1/4   | 17 | [mm]<br>[in] | 1600<br>63      |
| 4 | [mm]<br>[in] | 1800<br>70 3/4  | 11 | [mm]<br>[in] | 2270<br>89 1/2  | 18 | [mm]<br>[in] | 4732<br>186 1/4 |
| 5 | [mm]<br>[in] | 5800<br>228 1/2 | 12 | [mm]<br>[in] | 2630<br>103 3/4 | 19 | [mm]<br>[in] | 2130<br>83 3/4  |
| 6 | [mm]<br>[in] | 8000<br>315     | 13 | [mm]<br>[in] | 910<br>36       | 20 | [mm]<br>[in] | 600<br>23 1/2   |
| 7 | [mm]<br>[in] | 7000<br>275 1/2 | 14 | [mm]<br>[in] | 690<br>27 1/4   | 21 | [mm]<br>[in] | 140<br>5 3/4    |



Biesse

# Customer Care

# Beyond machines. Value that works longer.

Biesse Customer Care delivers global expertise and local support, every day, everywhere, to protect your investment and enhance long-term machine performance.



## Services

---

- Installation & Warranty
- Remote assistance
- On-site assistance
- IoT Services



## Maintenance

---

- Machinery maintenance
- Components maintenance



## Components

---

- Spare parts
- Upgrades & Modernization
- Tooling
- Software



## Training

---

- In-person coaching
- Customized education
- Remote training



Founded in Italy in 1969  
International natives

We are an international company that manufactures lines, machinery and components for making products, enhancing the potential of a wide range of materials.

Thanks to our rooted competence nurtured by an ever-growing worldwide network, we support your business evolution - empowering your imagination.

**Master of materials**

We simplify your  
manufacturing process  
to make the potential  
of any material shine

Join the  
Biesse world.

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





# Biesse Material·HUB

Network

Join the Biesse  
Material Hub  
experience

biesse.com



Biesse Material Hubs are multi-material spaces designed to experience our company and our complete product portfolio in a unique and engaging way.

A place to explore technologies, share ideas and find the right solution for you.

The world map reflects our identity as 'International Natives', showcasing our global presence through Biesse Material Hubs and showrooms worldwide.

 Biesse Material Hub  Showroom



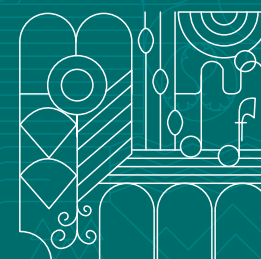
Reserve your visit  
in one of our  
multi-material  
spaces around  
the world



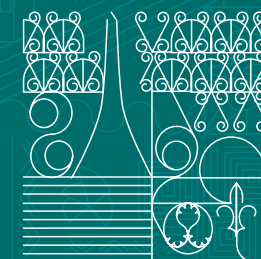
Canada | Toronto



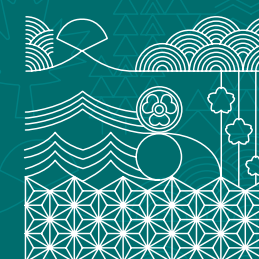
Portugal | Porto



Italy | Pesaro



France | Lyon



Japan | Osaka



Australia | Sydney



## Note

[illegible]

## Note

[illegible]







biesse.com

